



Pastoral Development
Orientation Framework

Focus on Ethiopia

MISEREOR
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Preface

There is no doubt that pastoralists in Ethiopia and elsewhere in the world make use of the drylands in a very adapted and efficient way. Their contribution to their national economies is considerable, but often neglected. Freedom to move their herds ('mobility') is a key feature of their livelihood and production systems. However, pastoral resources have become more and more threatened.

MISEREOR has been engaged in the field of pastoralism in Asia for decades, but it only started its engagement in Ethiopia during the drought year of 2011/12 by supporting Church development agencies and civil society organisations working with pastoralists. Initial work showed that approaches suitable to pastoralists' livelihoods were needed, as well as a mechanism for ongoing learning in this field.

The present Orientation Framework is an outcome of this learning process, undertaken with pastoralists in Ethiopia. The Orientation Framework sketches the principles for the way forward in an explorative participatory approach, building on pastoralists' own strategies. While it is a living document in the sense that experiences gathered will continuously feed into future developments, the Orientation Framework also serves as a reference well beyond Ethiopia.

We hope it inspires many actors working with pastoralists in Ethiopia and beyond.



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This document has been adopted by the Social and Development Commission of the Ethiopian Catholic Church for their own work with pastoralists.

Acronyms

ADLI	Agricultural Development-Led Industrialisation
AFSA	Alliance for Food Sovereignty in Africa
AREN	Association pour la Redynamisation de l'Elevage au Niger
ASALs	arid and semi-arid lands
CAADP	Comprehensive Africa Agriculture Development Programme
CELEP	Coalition of European Lobbies for Eastern African Pastoralism
CIRAD	Centre de Coopération Internationale en Recherche Agronomique pour le Développement
COMESA	Common Market for Eastern and Southern Africa
CSA	Central Statistical Agency, Ethiopia
DFID	Department for International Development, UK
DPP	disaster prevention and preparedness
EAC	East African Community
ECOWAS	Economic Community of West African States
EPRDF	Ethiopian People's Revolutionary Democratic Front
ESARO	Eastern and Southern African Regional Office
ESS	Ethiopia Socioeconomic Survey
FAO	Food and Agriculture Organization of the United Nations
FGM	female genital mutilation
GHG	greenhouse gases
GTP I	First Growth and Transformation Plan
GTP II	Second Growth and Transformation Plan
IFAD	International Fund for Agricultural Development
IGAD	Inter-Governmental Authority on Development
IIED	International Institute for Environment and Development
ILCA	International Livestock Centre for Africa (now ILRI)
ILRI	International Livestock Research Institute
IUCN	International Union for the Conservation of Nature
IYRP	International Year of Rangelands and Pastoralism
LEAP	Livestock Environmental Assessment and Performance
MoFPDA	Ministry of Federal and Pastoralist Development Affairs, Ethiopia
OCHA	United Nations Office for the Coordination of Humanitarian Affairs
PIF	Agriculture Sector Policy and Investment Framework
PINGO	Pastoralist Indigenous Non-Governmental Organisations
SNNPR	Southern Nations, Nationalities and Peoples' Region
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
USAID	United States Agency for International Development
WAMIP	World Alliance of Mobile Indigenous Peoples
WISP	World Initiative for Sustainable Pastoralism
WRH	World Reindeer Herders

Introduction

This Orientation Framework for engaging in pastoral development,¹ with a focus on Ethiopia, is a working document for MISEREOR and national partners. ‘Pastoral development’ is used in analogy with ‘agricultural development’ but referring to pastoral systems. The framework has three objectives: (i) fostering coherence in understanding; (ii) providing a basis for a discussion of approaches to and directions for intervention; (iii) identifying consequent areas of strategic change and adjustment in the way of working – including all dimensions of project design and implementation, selection, funding and evaluation procedures, as well as planning above the level of individual projects, especially considering the potential side effects on pastoral systems of other agricultural projects.²

While trying to cover as much ground as possible in a document of this kind, comprehensiveness could not be and has not been the aim. Instead, the document focuses on the points that were found to be either the most fundamental or the most often misunderstood. As an orientation framework, it does not describe every corner of the landscape, but concentrates on key landmarks and the places where history shows that bearings are most easily lost.

Small producers in pastoral systems, including women pastoralists and youths, are amongst the poorest and most marginalised groups in the world. Historical underinvestment by development projects has long been combined with ill-informed interventions. Inadequate assumptions in the processes of knowledge generation and planning continue to contribute to mechanisms of exclusion. The economic and ecological value of pastoral systems, actual and potential, is rarely recognised. Pastoralists rarely get to be heard in the processes aimed at changing their lives.

MISEREOR is the German Catholic Bishops’ Organisation for Development Cooperation, an agency dedicated to fighting poverty in Africa, Asia and Latin America. MISEREOR supports a broad spectrum of development measures, with a strong emphasis on people-led development and attention to sustainable agriculture. MISEREOR seeks and maintains partnerships with development organisations that benefit the poor, the neglected and the marginalised, irrespective of their religious convictions. Missionary work is excluded by statute.

This Orientation Framework is organised in three parts. The first part concerns the understanding of pastoral systems in general and the context of pastoral development. The second part focuses on the experience of pastoral development in Ethiopia. The third part combines these lessons in light of MISEREOR’s approach to development in order to define six axes of activity.

Our understanding of pastoral livelihood systems

This section presents our understanding of pastoralism. It is based on a review of the specialist literature worldwide, and especially that concerning pastoral systems in Africa. For the sake of brevity and simplicity, the section only focuses on fundamental points, plus a small set of implications. Two ‘landmarks’ addressed at the end of the next section must be particularly highlighted as they relate directly to two common sources of confusion: (i) representing pastoralism as a production system exclusively *belonging* to drylands, and (ii) representing mobility as a *coping strategy*.

FOUNDATIONS

Existing knowledge about pastoralism reveals a legacy of misunderstanding, debate and unfinished revision within rural development. It is a highly politicised space, especially at regional and national levels.³ Today, knowledge about pastoralism is also a hotspot in a much larger and moving front of reflection within science in the face of climate change.⁴ In practice, this means that there is no direct path to understanding ‘pastoralism’. Knowledge about pastoralism needs to be checked and negotiated step by step, turn by turn. That said, substantial work of this kind has already been done, leaving behind several landmarks. In the spirit of assisting ‘orientation’, rather than starting from a definition,⁵ what follows is a brief overview of these landmarks.

The science of pastoral development has done a U-turn. State-of-the-art, specialist understanding of pastoral systems today is almost the opposite of the model that dominated the field for most of the twentieth century. The change started within ecological sciences in the 1970s, and hinged on the representation of environmental variability in drylands: from seeing variability as an anomaly, synonymous with disorder and risk, there was a shift towards seeing it as a constitutive element of normality.⁶ In this new light, whether dryland variability is a problem or an asset for food production can only be determined in rela-

tion to a given strategy of production.⁷ Engaging with these environments based on the assumption that variability should and can be eliminated can lead to undesirable outcomes. Efforts to introduce stability in these contexts can actually have the opposite effect, triggering turbulence and reducing resilience.⁸ The change in the understanding of variability from anomaly to normality shares roots with systems theory, and the reflection on complexity and resilience within ecology.⁹ The inadequacy of the earlier model is now commonly debated in scientific circles, but the new model is not yet fully established and operational.¹⁰

Drylands are highly variable environments. In the drylands, rainfall is patchy in time and space. The chances that a crop will mature or that grass will grow in a given location cannot be predicted. This variability is dependent on the weather, and is further increased as patchy rains combine with other variables such as terrain or the opportunistic spread of parasites and diseases. Nutrients for livestock accumulate following the pattern of rainfall, with concentrations peaking in dryer regions.¹¹ At a lower scale in space and time, concentrations of nutrients depend on the lay of the land and the diversity of fodder plants, as well as on the particular moment pasture is grazed (nutrients peak in plants just before germination, and at night, after a day of photosynthesis).

Pastoralism specialises in taking advantage of environmental variability. Variability makes the drylands a world of brief but important opportunities for mobile herds. Concentrations of nutrients peak only for a few days, at different times and in different places. If these short-lived opportunities happened all at once, most of them would be gone before they could be used. Instead, variability in the spatial and temporal distribution of nutrients for livestock makes it possible to access them at their peak concentration over a period of time significantly longer than the window of opportunity in any given location. Pastoral systems worldwide specialise in taking advantage of such va-

riably distributed opportunities. This shared specialisation is what distinguishes pastoralism from other livestock systems, and what makes it possible to talk of ‘pastoralism’ despite the great range of diversity between pastoral systems themselves.

Pastoralism is about managing livestock grazing to improve productivity. Differences in the distribution of nutrients for livestock on rangelands are significant at both the macro scale (e.g. ecological zones or seasonality) and the micro scale (e.g. between the parts of a plant or the stages of its life cycle). Concentrations of nutrients for livestock happen in sequence as the rains advance, but peak only for a few days. Pastoral systems specialise in taking advantage of this variable distribution by managing grazing itineraries in such a way that grazing livestock feed better than they would in the absence of management.¹² A herd able to feed better is also a more productive herd. Highly specialised pastoral systems use the whole range of scales from macro to micro, while less specialised systems operate mostly or only at the macro level.¹³

Mobility increases productivity. Mobility is carefully planned, never random.¹⁴ As windows of opportunity for better livestock nutrition on rangelands open up with little notice and close quickly, arriving in the right place at the right time is essential. Mobile livestock that track the rains can enjoy peak concentrations of nutrients in fodder for a period that is significantly longer than the period for which nutrients peak in every location they visit. This achievement, equivalent to ‘making the land work harder’, can be seen as a form of unconventional intensification. The productivity of livestock systems in drylands has been observed to increase together with the degree of mobility (see Box 1, below). The benefit of mobility for animal nutrition is appreciated amongst dryland livestock keepers whether they are pastoralists or not. Mobility, when possible, is more intense in highly populated areas and during the rainy season.¹⁵

Pastoral systems use variability to manage variability. Adaptive food production systems in the drylands (pastoralism and farming systems alike) specialise in using variability in inputs (environmental variability) by matching it with variability integrated into their processes of production (sometimes described as ‘flexibility’ in the literature).¹⁶ In pastoralism, mo-

bility to match the variable distribution of nutrients for livestock in time and space is the most obvious example. Matching variability in inputs (e.g. patchy precipitation) with variability in processes (e.g. herd mobility) can produce relative stability (e.g. stability of good quality pasture relative to a herd tracking patchy and short-lived concentrations of nutrients on rangeland).¹⁷ Other examples are communal/flexible land tenure (e.g. variable ‘access’ options to pasture in time and space), promoting high levels of biodiversity (e.g. by rearing different species within the herd and different sub-groups within a breed) and seasonal and flexible forms of integration between specialist crop farmers and specialist mobile pastoralists.¹⁸

Pastoralism’s productivity increases together with its ecological sustainability. If nutrients for livestock were uniformly distributed over rangelands, livestock ingesting more biomass would effectively ingest more nutrients. But in drylands, nutrients for livestock are unevenly distributed amidst biomass that is of little or no use to livestock. As ruminants can digest only a given amount of biomass at a time, ingesting as much undiscerned biomass as possible means wasting digestive potential on useless material. Besides, in normal conditions ruminants faced with a poor diet lose appetite. Overgrazing by consuming as much biomass as possible is therefore not in the short-term interest of individual pastoralists, as famously assumed in the 1960s argument known as ‘the tragedy of the commons’. On the contrary, productivity in pastoral systems increases with the possibility of targeting only the nutrients amidst the biomass. The more a pastoral system is allowed to keep productivity high by operating according to its specialisation, the further it moves away from the risk of overgrazing.¹⁹

Women in pastoral systems are themselves pastoralists. Women pastoralists play a direct role in production and fully partake in the knowledge and complex social organisation that are necessary to run the system.²⁰ Failure to recognise and build on women pastoralists’ role as producers (including their informal power, institutions and communication networks) undermines this role and, consequently, women’s status in pastoralist societies. In the face of new constraints posed by the intended and unintended outcomes of development, and consequent practices of adaptation and maladaptation at the house-

hold level, women and children often pay the highest price in terms of workload, loss of status and erosion of assets and entitlements. Sometimes this price is so high that life in a pastoral system ceases to seem a viable option (or women simply reach this conclusion earlier than their male relatives). A reduction in mobility may increase access to services when these are exclusively delivered in settlements. Often, though, these new opportunities are meagre, and rarely compensate for the price that women pay as a consequence of changes in their livelihoods.

Earlier development work assumed the need to eliminate variability. The earlier approach in pastoral development stemmed from the experience of temperate climatic conditions in Europe, where rainfall distribution is (or rather used to be) relatively stable and uniform.²¹ Narratives of desertification from overgrazing also played a role in creating a sense of urgency and legitimising authoritarian actions.²² Interventions were focused on ‘introducing order’ in the form of uniformity and stability, for example by replacing local variable/flexible conditions with top-down rigid/static settings. Variability in processes of production was easier to target than variability in the environment, thus efforts to create order in drylands concentrated mostly on eliminating process variability, first of all mobility.²³ The current theatre of pastoral development, and more broadly of rural development in dryland regions, is the outcome of decades of problem-framing and development ‘solutions’ based on the view of variability as inherently problematic, and the efforts of local producers to adjust to such ‘solutions’, sometimes with undesirable consequences.

With variability being constitutive of drylands, it makes sense to build on it. Dryland food production systems, including pastoralism, have co-evolved with highly variable conditions. We can say that they are ‘at home’ with variability. They have learned to harness the opportunities offered by environmental variability by integrating variability into their processes of production. Within this logic, access to a variable range of locations, even if relatively uncertain, is better than secure access to just one location; keeping a variety of species in a herd, or of crops in fields, is better than keeping just one; integrating crops and livestock at a variety of spatial and temporal scales is better than integration at just one scale (e.g. seasonal or intermittent crop–livestock integration between specialist groups is better than permanent integration

at the farm level). Where variability is the norm, adapting to work *with* variability rather than against it means higher productivity and more resilience. It follows that any form of pastoral development committed to respect the ‘do no harm’ principle needs to be able to recognise the functional variability already integrated into processes of pastoral production, and refrain from interventions that directly or indirectly lead to reducing it.

Pastoral systems have strong social and economic linkages with the urban context. Pastoral systems are far from being an isolated phenomenon of the countryside. Virtually every pastoralist extended family has some members in town. In many pastoralist groups (e.g. Somali), economic surplus from livestock is reinvested in urban businesses. On the other hand, an unknown but most likely substantial proportion of the livestock in pastoral systems is the property of urban investors. In many pastoral regions, the market in milk and often peri-urban milk production have become important dimensions of the pastoralist economy, with milk-bearing cows kept closer to the settlement.²⁴ In most cases, these strategies depend on the existence of the pastoral system for their success, for example milk animals in peri-urban settings are returned to a mobile pastoralist herd at the end of lactation and replaced with new ones.

Marketing strategies vary according to levels of wealth. Wealthier households enjoy more options with regard to what to sell (which animals, how many, at what age) and when (taking advantage of moments when the terms of trade with cereals are favourable). They can supply larger numbers of animals and negotiate better prices. Their animals are also often in better condition. Overall, wealthier households are more likely to respond to and benefit from incentives for commercialisation and export. Poor households, meanwhile, must prioritise the building of their herds. They also use the market, but they sell their produce and livestock mostly out of necessity and therefore are much more likely to suffer from unfavourable terms of trade.²⁵ They are rarely able to access export markets. In their case, simply increasing their exposure to the market, or introducing incentives for the sale of livestock, does not guarantee benefits.

The economic value of pastoral systems is poorly captured in public data. Case studies consistently

point to the substantial economic contribution of pastoral systems in their respective countries. Such empirical evidence suggests that pastoralism is not only the main source of livelihood for millions of people, but also that it plays a substantial role in domestic and export markets, creates jobs both in primary production and along several value chains, supports farming systems through manure and draft animals, and provides tax revenue and environmental services.²⁶ Only a small proportion of this complex value is captured in public data, especially in Africa (starting from the actual magnitude of pastoral systems both in terms of people and livestock).²⁷ This invisibility of pastoralism in the statistics that inform policy-making distorts evaluations of costs and benefits when considering land-use conversions and alternatives to pastoralism.

Pastoralism also belongs outside drylands. Advocacy arguments often emphasise pastoralism's capacity to use dry regions that are otherwise unsuitable for crop farming. This is not incorrect, but it should not overshadow the fact that this valuable use of dry regions for food production is only sustainable if limited to the rainy season. Above all, while acknowledging pastoralism's capacity to use dry regions, one should be aware of the risk of fostering a representation of pastoralism as a production system that belongs to the drylands. Pastoral systems operate in wetter areas for the larger part of the year, and always have – in regions where there is only one annual rainy season, for example in the Sahel, pastoral systems operate in wetter, crop-farming areas for up to eight or nine months per year. Herds fatten mostly on the northern rangelands during the rainy season, but the system depends on the wetter, agricultural areas to run from one rainy season to the next.

Mobility is a strategy of production. Even sources that have wholly embraced the theoretical shift in the understanding of variability in drylands sometimes still represent pastoralist mobility as a *coping strategy*, something pastoralists do out of necessity in order to survive in a hostile ecosystem. No matter what the theoretical premises might be in these cases, or whether there is indeed an intention to justify mobility, calling it a *coping strategy* anchors the analysis to old-style pastoral development, and the legacy of understanding dryland variability as inherently problematic. Pastoralist mobility might help in

the case of droughts or crisis, but it often peaks (or used to peak) during the rainy season, that is at times of abundance. As we have seen, the role of mobility as a strategy of production, or indeed a strategy to increase productivity (something that adds value, an unconventional form of intensification) is what matters most in the understanding of pastoralism. The distinction is far from being semantic. Mobility-as-a-coping-strategy has only conservative value, and locks pastoralists into a livelihood system barely able to make it through the year, with no prospect of improvement. In this scenario, pastoralists are like people stranded in a lifeboat, just waiting to be saved. The only future lies in getting out of pastoralism. On the other hand, mobility-as-a-production-strategy takes pastoralists into the future as specialist users of highly variable environments (a situation that is expected to become more and more common). In this scenario pastoralists are masters of variability – even if things can sometimes go wrong, especially when their specialist strategies are undermined or cannot be implemented.

BOX 1

Pastoralist mobility as an advantage: a history of empirical observations

1940s

Colonial veterinarians Paul Mornet and Kasoum Kone, in their work on Bororo zebu raised by Fulani Wodaabe in Niger, attributed the surprising performance of the Wodaabe pastoral system to mobility: 'in order to be able to keep their zebu in good condition, the Fulani ... continue this ceaseless roaming and every year win ... this challenge of keeping alive animals whose nutritional needs (given their size) are disproportionate to the capacity of the pastures' (Mornet and Koné 1941: 179).

1960s

At a UNESCO symposium in Paris on the problems of arid zones, Brémaud and Pagot (1962) argued that the sedentarisation of pastoralists resulted in both ecological and economic losses.

1970s

ORSTOM geographer Henri Barral talked of ‘the necessity of reverting Sahelian pastoralists to mobility’ (Barral 1974: 135).

The first study describing the biology of one complete annual cycle of mobility in a Sahelian pastoral system found that herds fed on a diet 0.6 times (dry season) to 4 times (wet season) richer in protein content than the diet they would have had in the absence of mobility (Breman et al. 1978; Breman and De Wit 1983).

An intensive 12-month study of a number of herds in the migratory and sedentary sectors of the livestock economy of southern Darfur found that ‘in almost every production parameter the performance of the former is superior to that of the latter’ (Wilson and Clarke 1976: 47).

Empirical studies of the impact of the Sahelian drought of 1969–1973 found more severe losses associated with a lower degree of mobility (Bernus 1977; Mesnil 1978).

1980s

ILCA scientist Poul Sihm listed amongst the causes of project failure the ‘one-sided emphasis on technical assistance as a means of accomplishing development [and] encouragement, by developers, of government attempts to control pastoralism, including largely futile efforts to settle the pastoralist, regardless of the fact that this means destroying the most valuable aspect of pastoralism – its mobility and flexibility in the utilization of a marginally productive land resource’ (Sihm 1980: 30).

In 1983, in conclusion to a major research project on the Sahel, scientists at the Centre for Agrobiological Research in Wageningen, Netherlands, warned that ‘Replacing nomadism and transhumance by sedentarism will have a very negative effect on animal productivity’ (Vries 1983: 30).

A study looking at this issue in terms of the ecology of populations of wild ungulates in the Sahel found that ‘Wild ungulate populations migrate to make use of nutritious but very seasonal food supplies. In doing this, they maintain a higher population size than they could

as sedentary populations’ (Sinclair and Fryxell 1985: 987).

A study carried out by the ILCA Ethiopian Rangeland Programme found that the mobile pastoral systems run by the Boran were highly productive: ‘compared with Australian commercial ranches in a similar climatic environment, the Borana produce nearly four times as much protein and six times as much food energy from each hectare’ (Cossins 1985: 1).

An ILCA study modelling pastoral systems states that ‘it is clear that pastoralists need to employ a wide range of management and movement strategies to exploit fully the different forages available and to minimise the effects of fluctuating supply between seasons and years’ (Leeuw 1986: 252).

A study of human responses to risk and uncertainty in highly variable environments found that amongst Sahelian pastoralists, ‘Mobility ... works by taking advantage of the spatial and temporal structure of resource failure’, meaning environmental variability in the drylands (Halstead and O’Shea 1989: 3).

1990s and 2000s

Empirical studies of the impact of the 1984 Sahelian drought find more severe losses associated with a lower degree of mobility (Habou and Danguioua 1991).

In range ecology: ‘The producer’s strategy within non-equilibrium systems is to move livestock sequentially across a series of environments ... exploiting optimal periods in each area they use ... Herd management must aim at responding to alternate periods of high and low productivity, with an emphasis on exploiting environmental heterogeneity rather than attempting to manipulate the environment to maximise stability and uniformity’ (Behnke and Scoones 1993: 14–15).

‘When herds are moved opportunistically to ‘follow the rains’ they gain access to a more balanced forage supply than if they were kept in one place’ (Bayer and Waters-Bayer 1995: 61).

Twenty-six independent studies of pastoralism in nine countries of East, West and Southern Africa found returns per hectare several

times higher than ranching (Scoones 1995; Ocaido et al. 2009).

A comparative study of herds in sedentary, transhumant and nomadic systems in the Sahel of Niger found that productivity indices and herd production parameters rank in favour of the most mobile systems. In the case of cattle, productivity in sedentary systems was 20 per cent lower than in nomadic systems (Verdière 1998).

A study of knowledge about animal nutrition amongst the Wodaabe of Niger found that herders use mobility to lengthen the period when green pasture is available, and that therefore 'seasonal herd moving is a sophisticated method of putting into practice a long-term program of animal nutrition' (Schareika et al. 2000: 312).

'Livestock productivity is directly affected by whether animals are moved to seasonal pastures or are grazed all year around settlements ... Sheep that were moved in each of the previous four seasons gained on average 5 kg weight over winter, compared to village-based sheep that lost on average 8 kg, being stall-fed or foraging on over-grazed ranges within 5 km of villages over winter' (Kerven et al. 2006: 107).

A study of mobile sheep husbandry in the French Alps found that shepherds increase the quality of their flocks' nutrition by manipulating their grazing itineraries in ways that repeatedly boost their appetite in the course of the day (Meuret 2014).

ity as a problematic anomaly. This legacy of analytical inadequacy and misplaced attention produces distortions that contribute to what has been described as the 'technical exclusion' of pastoralists – from public data as well as from processes of governance and development.²⁸

The category 'agro-pastoralism' can be misleading.²⁹ Most people specialising in crop farming in drylands also keep livestock and keep their herds mobile if they can.³⁰ This reality is poorly captured by classifications of agricultural systems, which are usually locked into a focus on crops. Producers in pastoral systems are classified as 'agro-pastoralists' if they practise any amount of crop farming. On the other hand, households in farming communities are classified as 'farmers' even if they keep important numbers of livestock. To disaggregate the producers in pastoral systems based on whether or not pastoralism is accompanied by crop-farming strategies can magnify farming in the eyes of development and administration while hiding the magnitude and economic importance of pastoralism. This leads to a vicious cycle of misrepresentation, as producers who specialise in pastoralism soon learn to emphasise crop-farming practices in an attempt to gain visibility. Besides, farming is just one of a range of strategies added to livestock rearing in pastoral systems. Trading and seasonal wage labour are also common, to name just two, but even classifications of livestock systems single out only the presence of crop farming. The category 'agro-pastoralism' therefore needs to be treated with caution, and possibly avoided, while assumptions about the inherent primacy of crop farming over livestock keeping should be carefully monitored.

IMPLICATIONS

The methodologies of pastoral development are often compromised. Even when old assumptions based on the understanding of variability as an anomaly have been questioned and updated in the theoretical premises of pastoral development, they often continue to linger in methodological tools and practices, for example in off-the-shelf definitions and classifications, administrative procedures, mechanisms of appraisal, standard indicators and scales of observation. In so far as these methodological tools are a legacy of the old assumptions, they focus on the uniformity and stability of conditions as the norm, and treat variabil-

Pastoralists' problems are rooted in history more than in nature. All the problems in drylands, even those most detached from natural causes, sooner or later manifest themselves as vulnerability to drought. The processes that today undermine the resilience of pastoral systems, however, are neither new or of natural origin.³¹ Development has been a force for change for nearly a century, trying to replace local variable conditions (the functional variability deliberately integrated into processes of production) with top-down static settings. Current analyses of vulnerability and the resilience of pastoral systems need to be grounded in a sound understanding of this legacy, and should be wary of representations of pastoralists' prob-

lems as being driven by natural forces (or ‘endogenous’, ‘local’ or ‘traditional’ circumstances). Climate change only adds complications to a long history of ill-informed treatment (see Box 2).

Climate change is neither the end nor the fault of pastoralism. Two main arguments have dominated the discourse around pastoralism and climate change for the last ten years or so. One is that although pastoralism is adapted to cope with variability, the increase in variability due to climate change is pushing it over the edge. The other is that pastoralism itself ranks top amongst livestock systems as a cause of greenhouse gases (GHG), and therefore of climate change. Neither of these arguments is correct. The first argument rests on the outdated understanding of variability as a problem. The specialisation of pastoral systems, however, is not in *cop*ing with environmental variability, but in taking advantage of it. Therefore there is no self-evident explanation of increased vulnerability from increased variability. What might be expected is rather less vulnerability compared to other livelihood systems that use the same environment (all other inputs being equal). Questions therefore need to be asked about what is getting in the way of pastoralist specialisation, starting with looking at obstacles to mobility. As for the second argument, it is rooted in methodological flaws that are now acknowledged and under study, even in high-level policy-making processes like the Livestock Environmental Assessment and Performance (LEAP) partnership at FAO.³² When the carbon footprint of pastoral systems is measured with methodologies appropriate to the context, the annual carbon balance appears to be neutral.³³

Visions of modernisation have been unnecessarily narrow. Views of dryland variability as a problem, and of pastoral systems as part of the same ‘disorder’, have unnecessarily limited the vision of modernisation throughout the history of pastoral development. As a consequence, modernisation programmes have mostly focused on *replacing* pastoralism rather than modernising it. ‘Modern’ alternatives have been picked amongst a range of off-the-shelf models of livestock production from other countries and other ecological and economic conditions, usually with disappointing outcomes. The potential of using scientific knowledge and modern technologies to study and strengthen pastoral systems – that is, production sys-

tems that are *already* supporting livelihoods in drylands as well as generating substantial economic value – has generally remained out of sight. It is key to national goals of sustainability and resilience that pastoral systems are included in visions of modernisation, though *not* as an obstacle to be removed but as a constitutive element to be built upon. Other wealth-generating strategies, such as the use of dryland minerals and gas, can be integrated in judicious ways that benefit existing local livelihood systems, and do not need to be in competition with them.

BOX 2

Policy components to improve drought resilience

- enabling movement and eliminating restrictions to access grazing reserves in times of drought;
- supporting and developing indigenous institutions, including democratic and accountable associations of producers, including their higher-order federations;
- addressing the constraints to pastoralism posed by macro-economic and sectoral policies such as exchange rates, external trade in livestock and livestock products, and subsidies on crop inputs and feed, as well as the bureaucratic burdens on owners and traders in livestock;
- providing non-livestock-based savings institutions (‘pastoral banking’);
- introducing water points to facilitate the movement of stock to enable drought-time grazing, this being dependent on careful consideration of ecological and social impacts;
- improving security functional to a more efficient use of available pasture (insecurity often prevents the use of large extensions of rangeland, especially remote drought-time grazing reserves).

Source: Barton et al. (2001)

Pastoral development is development of pastoralism, not out of pastoralism. Early pastoral development programmes focused on ‘rationalising’ a livestock sector assumed to be in a state of disorder.³⁴

As pastoralism was seen as part of the state of disorder, development had no place for pastoralism; at best it would assist pastoralists in *moving out of* pastoralism (i.e. out of the problem). In this light, economic diversification was designed to replace pastoralism even where it could have been designed to support or complement it.³⁵ There is now overwhelming evidence that seeing pastoralism as a problem has been a mistake, and that the adaptive specialisation of pastoral systems represents the most sustainable and efficient way of using drylands for food production.³⁶ In this new light, it is clear that pastoral development needs finally to become the development *of* pastoralism, working with pastoral systems to support and strengthen them, improving pastoralism as a profession and safeguarding the integrity of its key resources. This does not mean forgetting those who do not wish to follow a life of pastoralism, or who have been squeezed out of it in times of crisis. They need help to reorganise their lives and find alternatives, especially as social marginalisation and poor formal education has placed them at a severe disadvantage.³⁷ However, conflating ‘pastoral development’ with facilitating exit strategies undermines pastoralism and generates confusion.

More ‘pastoralists’ does not automatically mean more livestock. In production systems where as a general rule only non-productive animals are marketed, herds grow at their own pace, helped by periods of abundant pasture, and are kept in check by periodic crises such as droughts and epidemics. Human population growth in pastoral systems cannot increase herd growth rates. In fact, larger pastoralist households would have higher costs, which would require selling more animals. Amongst the great majority of less wealthy families, marketing could only increase at the cost of selling productive animals, therefore reducing the pace of herd growth rather than increasing it.

Adapted to the future. Pastoral development as development *out of* pastoralism was institutionalised for so long that it lingers on, even after the mistake of this policy has been acknowledged. Substantially unchanged landscapes of interventions are now being justified on different premises: the belief that pas-

toral systems are inherently flawed has been replaced by the belief that they are now damaged beyond repair, and inevitably crumbling under the pressure of demographic growth and climate change. Narratives of pastoralist ‘resistance to change’ are replaced by narratives of a ‘new pastoralism’, but only to come back to the same old policies. The kind of pastoral development that might catch up with the most recent changes in pastoralism and the environment is once again based on the assumption that variability is a problem. The resulting portfolio of interventions very much resembles pre-1990s ‘business as usual’: the transfer of technology to reduce variability, promoting sedentarisation and crop farming, converting key pastoral resources to other uses – development and modernisation *out of* pastoralism.

We do not share the view that pastoralism has no future. If many people who identify themselves as ‘pastoralists’ are now living outside the system, the number of producers in pastoral systems is certainly bigger, especially in Africa. The relatively low cost of meat in domestic markets in the face of fast-rising demand and growing livestock exports is a strong indicator that pastoral systems remain productive despite the burden of old and new challenges. Even where serious damage has indeed been done, these adaptive livelihood/production systems are well worth the cost of recovering them, and development agencies have a moral responsibility to invest in this.

The challenge of pastoral development today is to build on the specialisation of pastoral systems, the specialisation in taking advantage of dryland variability by matching it with variability integrated into processes of production. Learning to distinguish this critical specialisation from the ‘noise’ brought about by the legacy of ill-informed interventions and consequent maladaptation, and the complications brought about by climate change, is the first step. Then, investments can be directed to use the resources now available in science and technology to foster pastoralists’ specialisation and make it stronger and better. With global climate change, environmental variability is becoming the norm not just in drylands but all over the world. The lesson from livelihood systems that are ‘at home’ with variability, like pastoralism, seems more relevant than ever.

CIVIL SOCIETY, POLICY AND THE INSTITUTIONAL LANDSCAPE

The transformation in knowledge about pastoralism in the 1990s was followed by a flourishing of pastoralist social movements and had a substantial impact on policy and legislation. This section gives an overview and a few highlights.

PASTORALIST SOCIAL MOVEMENTS

National networks of pastoralist organisations have been formed in India and Africa since the 1990s. Some examples are the Association pour la Redynamisation de l'Élevage au Niger (AREN), founded in 1990; the Pastoralist Indigenous Non-Governmental Organisations (PINGO) forum and the Pastoral Women's Council, both established in Tanzania, respectively in 1994 and 1997; the Samburu Women's Trust in Kenya, established in 2006; and the First Pastoral Parliament in Gujarat in 2008.

At the global level, the Association of World Reindeer Herders, created in 1997, has so far held six world congresses.³⁸ The World Alliance of Mobile Indigenous Peoples (WAMIP), created in 2003, has chapters in seven regions, including Africa, Asia, Latin America and Europe, and has held four global meetings.³⁹

All over the world, pastoralist social movements have produced formal declarations in an attempt to gain a voice in the policy-making processes that affect their livelihoods (a list of such declarations can be found in Annex 3, below). In virtually all such declarations, pastoralists have asserted their expertise as livestock professionals and called for a fundamental rethinking of pastoral development. Top priority has been given to a call to stop and reverse the undermining of pastoralist mobility and the conversion of rangelands to other uses. In 2010, the Mera Declaration by women pastoralists also stressed women's role as producers in pastoral systems.⁴⁰ Connections with the global 'food sovereignty' movement have also been explored.⁴¹

Pastoralist social movements have not happened in isolation. A loose network of supporters across the world, involving national and international NGOs, university departments, research institutes and UN agencies, has accompanied them in various ways. The main formal statements on pastoralism by scholars

and international organisations include the 2002 Dana Declaration on Mobile Peoples and Conservation and the Dana+10 Statement,⁴² the 2015 Nyéléni Declaration of the International Forum for Agroecology,⁴³ and the 2016 Cancun Statement for the Promotion of Sustainable Pastoralism, made at a side event of the 13th Conference of the Parties of the Convention on Biological Diversity.⁴⁴

Between 2001 and 2005, the UK based International Institute for Environment and Development (IIED) and the Kenyan NGO RECONCILE ran a project called 'The Reinforcement of Pastoral Civil Society in East Africa'. In 2003, UNDP published an inventory of 'myths about pastoralism'⁴⁵ and held the 'Global Pastoral Programme Formulation Workshop' in Nairobi in 2004. This eventually led to the establishment at the International Union for the Conservation of Nature (IUCN) of the World Initiative for Sustainable Pastoralism (WISP). In the Horn of Africa, the Pastoralist Communication Initiative organised several large pastoralist gatherings between 2005 and 2010, including a global gathering in partnership with the UN Office for the Coordination of Humanitarian Affairs (OCHA) in 2005.⁴⁶ Since 2009, the Coalition of European Lobbies for Eastern African Pastoralism (CELEP) has combined efforts by European and African partners to lobby policy-makers in Europe to recognise and support pastoralism. In 2011/12, IUCN-ESARO produced the Global Perspective on Minimum Standards and Good Practice in Pastoral Development.⁴⁷ The document was the result of a substantial process of consultation through WISP's large network of pastoralist civil society organisations, practitioners and scholars.⁴⁸ Two years later, the FAO launched the Pastoralist Knowledge Hub, with an online portal in six languages (including Chinese, Arabic and Russian), which is now in partnership with 37 organisations.⁴⁹ The International Fund for Agricultural Development (IFAD) dedicated the 2016 global Farmers Forum to pastoralism, and in 2018 published two sets of guidelines focusing on *Engaging with Pastoralists – A Holistic Development Approach*.⁵⁰ A UN International Year of Rangelands and Pastoralism (IYRP) is in preparation, involving a coalition including the FAO, IFAD, the International Land Coalition, CELEP, IUCN and the International Livestock Research Institute (ILRI), as well as several pastoralist civil society organisations. The government of Mongolia presented the IYRP proposal to the FAO at the 26th session of the Committee on Agriculture last year, backed up by the Ethiopian delegation.⁵¹

BOX 3

The Mera Declaration of Women Pastoralists (2010).

In 2010, 160 women pastoralist delegates from 31 countries met in Mera (Gujarat, India) for six days to ‘strengthen alliances and forward practical solutions to issues that affect us’. The discussion resulted in the Mera Declaration, a 29-point plea ‘to governments, governing agencies of the United Nations, other relevant international and regional organizations, research institutes and our own customary leaders’. The Mera Declaration is unequivocal in asserting women pastoralists’ front-line role as livestock professionals.

Excerpts from the Mera Declaration:

‘We, the women pastoralists gathered in Mera, India, from November 21–26, 2010, representing 31 countries ... call on governments, governing agencies of the United Nations, other relevant international and regional organizations, research institutes and our own customary leaders to support us and to: RECOGNISE pastoralist mobility as a fundamental right ... ENSURE the equal rights of pastoralist women and recognize their key role in society. This includes the recognition of the work of women pastoralists as a valid profession and as a fundamental component of pastoralism ... ADAPT existing legislation to take into account the specificities of pastoralist ways of life and differentiate nomadic and transhumant pastoralism from intensive livestock production. ... PROMOTE regional policies and treaties that take into account trans-border pastoralism and respect traditional grazing territories and migratory patterns. These are to be negotiated in consultation with pastoralist women ... DEVELOP legislation that restricts development that harms or threatens pastoralist livelihoods ... DEVELOP mobile facilities that respect pastoralist realities and are in line with the needs of pastoralist women ... SUPPORT and fund research into new technologies that further improve the efficiency and environmental sustainability of pas-

toralist ways of life. These technologies should be attuned to the needs and realities of pastoralism and should take advantage of renewable and easily accessible natural resources’.

LEGISLATION AND POLICIES

Over the last twenty years, several countries have produced legal frameworks centred on the formal recognition of pastoralist mobility as an asset, the recognition of pastoralists’ customary access rights and communal management systems, and the recognition of pastoral resources and the importance of protecting them. Examples from Africa are Mauritania (2000), Mali (2001, 2010) and Niger (2012). Works in this direction are also underway in Chad.⁵²

Legal and policy arrangements for cross-border pastoralism worldwide have recently been reviewed in an IUCN study for the FAO.⁵³ Technical and legal issues on the governance of pastoral lands have been reviewed as part of the process for implementing the 2012 FAO Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests.⁵⁴ The Pastoralist Knowledge Hub portal includes a search engine for pastoralism-relevant legal documents worldwide, based on the FAO legislative and policy database FAOLEX.⁵⁵

The African Union’s Policy Framework on Pastoralism (2010).⁵⁶ The first pan-African policy framework on pastoralism. It ‘emphasises the need to fully involve pastoralist women and men in the national and regional development processes from which they are supposed to benefit’ and acknowledges the problematic legacy of pastoral development: ‘Many past attempts to support pastoral development failed to recognise the strengths of pastoralism, and did not balance the need for greater pastoral representation and good governance, with appropriate technical approaches’.⁵⁷ The framework supports pastoralism as a way of life and as a production system, and emphasises the importance of pastoralists’ ‘strategic mobility’ for value creation and sustainable resource use.⁵⁸ There is recognition that ‘pastoralist ecosystems often transcend national borders and that movement within these systems is economically and ecologically rational’,⁵⁹ and that improved understanding of the economics of pastoralism amongst policy-makers is central to the policy-making process.⁶⁰

The National Policy for the Sustainable Development of Northern Kenya and Other Arid Lands (2012).⁶¹ The first national policy consistent with the African Union Policy Framework on Pastoralism. One of three key challenges addressed is ‘how to protect and promote the mobility and institutional arrangements which are so essential to productive pastoralism’.⁶² Pastoralism is defined as ‘an animal production system which takes advantage of the characteristic instability of rangeland environments’ (see Box 4). The policy promises that ‘the government will ... recognise, through legislation, pastoralism as a legitimate form of productive land use and development on the same basis as farming and incorporate the value of dryland goods and services within national economic planning’.⁶³

BOX 4

Pastoralism in Kenya’s first ASAL policy

The definition of pastoralism

‘The term refers to both an economic activity and a cultural identity, but the latter does not necessarily imply the former. As an economic activity, pastoralism is an animal production system which takes advantage of the characteristic instability of rangeland environments, where key resources such as nutrients and water for livestock become available in short-lived and largely unpredictable concentrations. Crucial aspects of pastoralist specialisation are: 1. The interaction of people, animals and the environment, particularly strategic mobility of livestock and selective feeding; and 2. The development of flexible resource management systems, particularly communal land management institutions and non-exclusive entitlements to water resources’.

Why a focus on pastoralism?

‘First, pastoralists are among the groups most marginalised from socio-economic services and infrastructure. Successful achievement of national and international development targets will depend on the extent to which attention is given to the distinct challenges facing

pastoral communities. The second reason is that, until recently, most governments viewed pastoral areas as net consumers of national wealth that offered poor prospects of return on investment. Pastoralism was therefore less valued than other forms of land use and less well-supported. Recent studies have shown that these views were misplaced.’

Source: Republic of Kenya (2012: iii).

The international declarations of N’Djamena and Nouakchott (2013). The N’Djamena Declaration was endorsed by the participants at a regional dialogue on the contribution of pastoral livestock to the security and development of the Saharo-Saharan areas, including several ministries.⁶⁴ The declaration states, ‘As pastoral livestock and trade constitute one of the main legal and peaceful activities in the areas concerned, they form a crucial line of defence against insecurity across the region’. The promotion of transhumant livestock pastoralism is recommended. States are invited to: (i) ‘put the pastoral livestock sector at the heart of stabilisation and development strategies for the Saharo-Saharan areas in the short-, medium- and long-term’; and (ii) ‘establish and implement proactive and coherent policies to improve governance, strengthen resilience and enhance the economic and social viability of activity systems in the Saharo-Saharan areas’. The Nouakchott Declaration on Pastoralism was produced in the context of the ‘High level forum on pastoralism in the Sahel’ and endorsed by six Sahelian countries (Burkina Faso, Mali, Mauritania, Niger, Senegal and Chad).⁶⁵ The declaration states that ‘pastoralism is a driver of growth, security, peace, stability, and job creation, and contributes to reducing food insecurity, malnutrition, and poverty in regions to which it brings life and structure’. The signatory parties state that ‘viewpoints have changed and pastoralism is now recognized as an effective practice and lifestyle suited to the Sahelo-Saharan conditions’.

The AU-IBAR Livestock Development Strategy for Africa (2015).⁶⁶ Builds on the the AU Policy Framework for Pastoralism, confirming that ‘An important requirement for the pastoralist livestock production system is mobility’. It mentions the potential opportunities with high-value markets when investing in the

specific quality of pastoral livestock (e.g. organic) and underlines that ‘Mobility and holistic resource management and community managed grazing practices will be important features of any such initiatives’. The policy states that, ‘In general, with the exception of a few countries, livestock rearing is mostly household based, with smallholders and pastoralist households constituting the vast majority of producers’. In East Africa, ‘the livestock sector strives to record annual growth and remains as the preferred sector to minimize and spread risks of shocks and enhance resilience of disaster prone and vulnerable communities’. In West Africa, ‘competitiveness ... is also the strength of the farming systems in the region (pastoral, agro-pastoral) ... [I]t has been shown that there is a differential in cost of production in favour of the Sahelian countries as compared to the large livestock exporting countries (Brazil, Argentina, USA, EU, Australia

and New Zealand)’.

The UN Agenda 2030 (2015).⁶⁷ Goal 2.3 of the UN Agenda 2030 requires secure and equal access to land for small-scale food producers, including pastoralists. By 2030, the aim is to ‘double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment’.

Other regional institutions such as the Common Market for Eastern and Southern Africa (COMESA),⁶⁸ the Inter-Governmental Authority on Development (IGAD)⁶⁹ and the Economic Community of West African States (ECOWAS) are also recognising the important benefits of livestock mobility.⁷⁰

Our understanding of development and pastoralism in Ethiopia

This second part of the Orientation Framework focuses on pastoral development in Ethiopia. Here we present our understanding based on an overview of the literature, only focusing on the points of reference that appear essential for navigating this landscape.

THE ROAD SO FAR

Development programmes as known today made their appearance in Ethiopia in the 1950s. Interventions were limited to the southern highlands and the predominantly pastoral lowlands,⁷¹ and concentrated on the transfer of technology and structural transformation. Important dry-season grazing reserves used by Afar and Karrayu Oromo pastoralists were turned into commercial concessions for large-scale sugarcane and cotton plantations run by Dutch and British

companies, and meant to supply the export market.⁷² This loss of grazing reserves is known to have played a part in the severity of the famine in Afar during the drought of 1972–1974.⁷³

In 1960, the first rangeland development programme, designed and funded by the World Bank, was supposed to increase livestock production and commercialisation in the eastern and southern lowlands. The improvement of access roads, veterinary services, marketing facilities and water supplies was also planned but proved a challenge to implement. Two similar projects followed in 1973 and 1975. In some areas, especially in the south, for example Borana, permanent water points were introduced in order to open up wet-season rangelands to year-round use.⁷⁴ It is now common understanding that these early programmes largely failed to produce their expected outcomes.⁷⁵

During the Derg military regime (1974–1987), development continued to favour large-scale agricultural projects, indeed with increased vigour, although ownership shifted from private concessionaries to the state.⁷⁶ In 1978, the National Revolutionary Development Campaign and the Central Planning Supreme Council prioritised the expansion of state farms. The following ten-year plan (1983/4 to 1993/4) focused on the conversion of pastoral land for large-scale irrigated agriculture.⁷⁷ Villagisation, planned in the 1975 land reforms, was implemented on a large scale.⁷⁸ Cross-border mobility at all levels, down to district (*woreda*) borders, was restricted. With ongoing civil war in several regions, insecurity further restricted grazing options.

In 1991, the transitional government found a country more divided and poorer than it was in 1974. A new constitution was drafted in 1994, establishing a parliamentary republic alongside ethnic federalism, with the first multiparty elections held the following year.⁷⁹ Led by the EPRDF (Ethiopian People's Revolutionary Democratic Front), the new Ethiopia launched on its greatest development race ever.

Ethiopia's pastoral development since 1991 has been analysed in detail. A comprehensive review up to 2008 was carried out by the UK Department for International Development (DFID) at the request of the Government of Ethiopia, as part of a study on pastoral economic growth and development in the country.⁸⁰ The last decade is covered in a recent study commissioned by the World Bank.⁸¹ A number of thematic studies are also available, focusing on water interventions,⁸² land tenure and planning,⁸³ education,⁸⁴ gender,⁸⁵ livestock and marketing,⁸⁶ and climate and drought management.⁸⁷ There is general agreement in this literature on the positive change and the overall integrity of the new administration with regard to development, but it also highlights important elements of continuity with past regimes.⁸⁸

The new vision of development is broader and more ambitious than ever, and lowlands have been given specific attention. A neglect of lowlands in the past is officially acknowledged, and important investment is being made in pastoral regions. However, policies and interventions have struggled to free themselves from the spell of the old 'development *out of* pastoralism' approach. Pastoral systems are seen as a liability more than an asset, at best at odds with modernisation, and ultimately the expectation is that

they will be phased out as development moves in. Even programmes described as 'pastoral development' have largely remained oriented towards supporting and encouraging non-pastoralist activities and ex-pastoralists/non-pastoralists more than pastoral production and trade, and pastoralists as producers in pastoral systems.⁸⁹ Highlights of critical dimensions of intervention are provided below.

'[A]cross three different political systems, the Ethiopian government has adhered to a policy of developing pastoral areas with large irrigated estates operated either by the commercial sector or the state, combined with pastoral settlement schemes for small holders. No efforts of comparable duration or ambitiousness have sought to explore the productive potential of the extensive livestock production systems indigenous to the lowlands and that produce both live animals and products for a range of different markets, including export'

(Little et al. 2010a: 21)

Sedentarisation. New investment has been articulated around 'phased voluntary sedentarisation' in pastoral areas, especially along the banks of major rivers, as the main direction for transforming pastoralist societies into farming communities.⁹⁰ The claim in policies and programmes that sedentarisation should be voluntary exists alongside statements that 'sedentarisation is the only option'.⁹¹ Bilateral and multilateral donor organisations have contributed to this project by creating new boreholes, fixed-point basic services and managed grazing schemes as incentives for settlement.⁹² In some areas, especially in the Somali regional state, planned state interventions for sedentarisation and commercialisation have combined with the progressive appropriation of pastoral land by local elites.⁹³ People who lost their land to the development-driven expansion of commercial agriculture have little alternative to the poor working conditions and low pay of agricultural wage labour.⁹⁴ Reports from newly planned villages in the Omo Valley highlight growing insecurity and poverty.⁹⁵

Water development. The creation of new water points has always been a favoured activity in pastoral

development.⁹⁶ In Ethiopia, water development has been a core incentive in the ‘phased voluntary sedentarisation’ programme. A sectoral perspective has dominated these interventions, driven by the assumption that any increase in the availability of water will be of universal benefit. Systemic implications, for example in terms of resource management or ecological sustainability, remained largely unconsidered, despite the almost universal claims of operating with a holistic approach.⁹⁷ Water provision to encourage settlement has effectively favoured people who already have a livelihood in settlements, even if elsewhere, over those who have a mobile livelihood, even if nearby. In some cases, development has provided water by the drop while taking it away by the bucket. The Gibe III dam has effectively made the flood-retreat agriculture that was a major source of staple food in the Lower Omo Valley impossible.⁹⁸ Following the construction of the Kessem-Kabana dam and irrigation scheme in Oromia, herders now trek often more than 250 km just to secure pasture and water for their animals (see Annex 4).⁹⁹

‘[I]nterventions that intend to build resilience are too often capital projects without any budget allocated for the necessary operations and management – for example, one community visited had a health centre built through an international donor, but no doctors or nurses to staff it, and no supplies for treatment – a prime example of a complete waste of money’

(Venton et al. 2012: 78)

Land tenure. Virtually all the land base of pastoral systems – all the rangelands and forests in Ethiopia – was appropriated by the state under the 1955 Revised Constitution.¹⁰⁰ The 1975 land tenure reforms of the Derg government focused on farming, but four articles (out of 33) mentioned ‘nomadic lands’. Pastoralists were granted ‘possessory rights over the lands they customarily use for grazing or other purposes related to agriculture’, but ‘international agreements relating to nomadic lands’ were not affected.¹⁰¹ New and important areas of pastoral land were lost to development and conservation programmes, none of which were ever returned. The lack of legal recognition

of pastoralist use as a form of land use on an equal basis with farming – a legacy of the previous regime – was not rectified. With the end of the Derg, federal policies and legislation relevant to pastoral areas left this crucial point substantially overlooked. Land use and planning remained highly contentious. Ethnic federalism could allow for adapting land policy to the specific needs and conditions of land use in pastoral systems, but comprehensive land-use plans are not yet available in any of the pastoral-dominated regional states except for river-basin development.¹⁰² Since 1991, millions of hectares have been offered to investors, although so far the response has been lower than expected due to the lack of infrastructure. Land-use conversion programmes in pastoral areas typically target the most fertile land (e.g. riverine land).¹⁰³ Such areas are typically dry-season grazing reserves that enable the productive use of much larger extensions of land during the wet season. The actual productive value of these complex use patterns is typically overlooked in cost–benefit analyses of land-use conversion, which focus exclusively on the value of the pasture on the land considered for use conversion.¹⁰⁴ Rangelands are also increasingly fragmented as a consequence of invasive plant species,¹⁰⁵ urbanisation and the privatisation of land and water, as well as the proliferation of private enclosures in certain areas.¹⁰⁶ Dispossession for commercial farms, mechanised agriculture and irrigation have also been substantial.¹⁰⁷

Social inequality. Pastoralists are known to be ‘service poor’. Access to services in pastoral areas, including opportunities for marketing, remains well below national averages.¹⁰⁸ As for wealth disparity, although it is not new amongst pastoralists, it has become wider and more permanent. The current model of commercialisation in the livestock sector, pushed by development programmes and pulled by increased demand for meat on domestic and exports markets, is redistributing livestock from the poor to the rich, rewarding wealthy operators while making it more difficult for poorer pastoralists to rebuild herds or withstand drought.¹⁰⁹ Wealthier households have greater capacity to control key land and water resources (e.g. by owning wells and underground cisterns, and by putting up enclosures) with negative impacts on poorer herders (directly or indirectly). Wealthier households are also those best placed to engage with export markets. The current emphasis in development on increasing production and exports plays against

impoverished pastoralists, who cannot command access to export markets and whose primary interest is not to sell more but less, while trying to rebuild a viable herd.¹¹⁰

‘Despite the importance of commercialization as a trend which can cause and reinforce pastoral vulnerability, it is a trend which seems to be understated or even absent from the policy narratives and related strategies of many government and donor actors. Where livestock marketing and exports are mentioned, it is always from a position of universal benefits’

(Aklilu and Catley 2010b: 2)

Women pastoralists. Women in pastoral systems face a double disadvantage: as pastoralists and as women. As pastoralists, they face social, economic and political marginalisation. As women, they face inequality in accessing resources, social services and participation in decision-making. When economic pressure trickles down to the most vulnerable groups, women pastoralists are hit twice. The privatisation of land (enclosures) and water points is increasing the workload associated with finding water and fodder, both as a net loss of resources and as a physical barrier, for the majority who have no share in the process. The commercialisation of basic resources, like water, is shifting the balance of control in favour of men, who have more chances to access cash and be involved in management committees. The commercialisation of livestock and livestock products has a similar effect as men have been the primary target of these interventions, based on the incorrect assumption that livestock keeping is their prerogative. Sedentarisation can be associated with worsening conditions for women in terms of workload and social control, while men’s workload and sense of status are likely to decrease with the loss of livestock usually associated with settling.¹¹¹ Female genital mutilation (FGM), child marriage and domestic violence against women are present in the country in proportions that are much larger than the estimated population of pastoralists (12 per cent), indicating the importance of these problems, but also that they are not specific to pastoralist communities (see Box 5).

BOX 5

Selected national gender indicators for Ethiopia

- Female genital mutilation, all types aggregated (aged 15 to 49): 65 per cent (2017). The most invasive form of FGM, Type III, is prevalent amongst Afar and Somali, and accounts for about 8 per cent of all FGM (28 Too Many 2013).
- Child marriage: This affects 40 per cent of women aged 20 to 24, with the highest proportion (74 per cent) in Amhara (Presler Marshall et al. 2016).
- Lifetime physical and/or sexual intimate partner violence: 28 per cent (2016)
- Physical and/or sexual intimate partner violence in the last 12 months: 20 per cent (2016)

Source: UN-Women (2018)

Violent conflict. The experience of violence is deeply rooted in the history of modern Ethiopia, and its long-term consequences can hardly be underestimated. In some cases, poor planning and unintended development outcomes have exacerbated latent conditions of enmity and created new ones.¹¹² The incidence of violent conflict increases when rights are unclear or contradictory, and when the hope for justice has been eroded (for example, when rights and opportunities to access key resources are being changed from the outside, or with support from the outside, without consideration of pre-existing institutional arrangements).¹¹³

‘From livelihoods and food security perspectives, intractable and violent conflict is probably the single most important factor for the continuation or worsening of conditions in pastoralist areas. Therefore, when describing the vulnerability context of food-insecure pastoralist areas, conflict cuts across shocks, trends, and even seasonality’

(Catley and Iyasu 2010: 54)

PASTORAL SYSTEMS IN THE CONTEXT OF MODERN ETHIOPIA

A fast-changing country. Over the last fifteen years, Ethiopia has undergone impressive transformation. Just to pick some examples from a recent World Bank country profile, while population almost doubled, estimated life expectancy at birth increased by about 25 per cent; road density and electric power consumption per capita increased by almost 300 per cent; mobile-phone subscriptions increased from zero to half of the population (now close to 100 million), and internet use rose from 0 to 15 per cent; industry contribution to GDP, which had been around 10 per cent between 1990 and 2010, doubled, albeit still state driven and concentrated in construction, electricity and water (with manufacturing down at 5 per cent of GDP). Some 25 per cent of households in rural areas have access to either solar (16.4 per cent) or metered electricity (5.7 per cent shared; 4.4 per cent private).¹¹⁴

Ubiquitous small-scale agriculture with livestock. Nearly all rural households (98 per cent) and 64 per cent of households in ‘small towns’ (with populations of less than 10,000) engage in agricultural activities; 95 per cent of food and 85 per cent of national employment depend on agriculture. Livestock is kept by approximately 90 per cent of rural households and 48 per cent of small-town households. About 86 per cent of households that own livestock have at least one head of cattle.¹¹⁵ Small-scale production, scattered on average over 11 fields per farm, is predominant. Some 87 per cent of producers operate on less than 2 hectares in total, 64 per cent on less than 1 hectare and 40 per cent on less than 0.5 hectares.¹¹⁶ There is a great need for fertiliser,¹¹⁷ especially in the highlands, where productivity is higher but soil depletion and land degradation are a widespread and long-standing issue.¹¹⁸ Inorganic fertiliser is prohibitively expensive for most, with benefits rarely matching the cost, due to unpredictable conditions (capital-intensive fertiliser-based production assumes predictability, therefore uniformity and stability in the production environment). For the five main grain crops, the majority of what is harvested is used for home consumption, with 8 to 21 per cent marketed. According to the Ministry of Agriculture, post-harvest losses are as high as 30 per cent.¹¹⁹

Importance of local knowledge. Both crop farming and livestock keeping are mostly reliant on local knowledge and practices. Some 80 to 90 per cent of food grain production is from local seed stocks, while local breeds represent most of the livestock. Participation in ‘livestock development packages’ is less than 1 per cent, but about half of households use immunisation services.¹²⁰

Magnitude of pastoral systems. Research carried out for IGAD suggests that livestock production accounts for about 45 per cent of agricultural GDP, rather than the official 32 per cent, as several livestock functions are not presently included in the calculation, such as the value of draught power to crop production.¹²¹ The proportion of the livestock sector represented by pastoral systems is uncertain (the last pastoral livestock census was in 2003/4). The common assumption is that 30 per cent of cattle, 70 per cent of goats and all camels are in pastoral systems. Based on the total value of livestock in Ethiopia as calculated in 2008/9, this would correspond to 34.8 billion birr (\$1.28 billion).¹²² Lowland pastoralism is estimated to produce 35 per cent of red meat and 38 per cent of total milk nationally,¹²³ as well as 20 per cent of the plough oxen used by highland farmers.¹²⁴ This value is produced by some 2.4 million to 3 million households (12 million to 15 million people with an average household size of 5 people),¹²⁵ officially classified into 29 ethnic denominations (Oromo, Somali and Afar being the majority). Pastoral systems are significant in Somali and Afar regional states, large areas of Oromia and the Southern Nations Nationalities and Peoples (SNNP) region. They are also found in some areas along the highland–lowland gradient (for example in parts of North Gondar).¹²⁶ Livestock is the only agricultural activity for 30 per cent of households in predominantly pastoral regions.¹²⁷

Integration of pastoralism into the wider economy. In regions where pastoralism is predominant, 30.7 per cent of household income is from ‘non-farm enterprises’, mainly distributed across various categories of non-agricultural business and services.¹²⁸ Rural–urban connections in these regions are the norm. Pastoralist households have relatives and social capital in towns. In the Somali region in particular, remittances from urban centres and from abroad are common.¹²⁹ Surplus from animal production is invested in urban-based business (a practice called *chirkad*).¹³⁰ There is also significant integration, albeit not without tension, across the lowland–high-

land gradient. Markets for grain and livestock located in highland–lowland interface corridors are the most dynamic. When security conditions allow, lowland pastoralists take their herds to higher altitudes or mid-altitude areas during the dry season, while mid-altitude pastoralists who also farm send them down to lower altitudes during the farming season. Pastoralists work as wage labourers on farms. Both groups in different areas rent land from one another.¹³¹

Contribution of pastoralism to the export market. The supply for Ethiopia’s livestock export sector comes almost entirely from pastoral systems, especially from Borena, Afar and Somali regions. Live animals exit Ethiopia via Somaliland, Puntland, Kenya, Sudan and Djibouti. The official annual value of this market was calculated to be around \$150 million in 2009, not counting the route through Djibouti (for which there were no data at the time). Including official and unofficial channels, also excluding Djibouti, the value of cross-border trade was estimated at \$325 million.¹³²

Cereal–livestock terms of trade and food security. In periods of food security, the livestock–cereal exchange rate can be in the order of 1:2 to 1:15 – that is, a pastoralist can secure between twice and 15 times more energy by exchanging an animal for cereals than by eating it. However, when food security is poor, the livestock–cereal exchange rate becomes especially unfavourable to pastoralists. Livestock prices drop while the price of cereals increase. Deterioration of the livestock–cereal exchange rate varies according to the grain in question, highest in the case of maize. Thus, low food security within a rural economy where the main staple food is maize are particularly high-risk conditions for vulnerable producers in pastoral systems. During the great 1970s drought, the deterioration of cereal–livestock terms of trade caused more destitution amongst Ethiopian pastoralists than animal mortality.¹³³

The ‘crisis of pastoralism’. Small-scale producers in pastoral systems are not all equally vulnerable. Fine-grained analysis suggests that those in medium-to high-wealth groups are actually ‘moving up’,¹³⁴ becoming wealthier and more secure. Thus ‘crisis of pastoralism’ indicators need to be read in the light of these internal differences. The numbers of those suffering from destitution need to be read against the numbers of those who remain operational within the production system. While most pastoralists are probably struggling, overall livestock production in Ethiopia

‘A person's ability to command food – indeed, to command any commodity he wishes to acquire or retain – depends on the entitlement relations that govern possession and use in that society. It depends on what he owns, what exchange possibilities are offered to him, what is given to him free, and what is taken away from him’

(Sen 1981: 154)

‘If vulnerability to drought is increasing, the reasons have to do with declining ability to cope, rather than increasingly frequent or abnormally severe drought events’

(Devereux 2006: 14)

‘Restrictions on mobility, disregard of indigenous knowledge, lack of political power and incompatible land tenure systems are some of the reasons which have brought this marginalization’

(Gebeye 2016: 4)

– as visible in marketing – has remained steady, a situation that suggests, more than a systemic deficit in inputs, a shift in the distribution of ‘entitlements’ amongst producers.¹³⁵

The economic value of pastoral systems is poorly captured in public data. An investigation into the contribution of pastoral systems to Ethiopia’s national economy, carried out in 2006 using a ‘total economic valuation’ approach, concluded that, ‘by failing to acknowledge the contribution of breeding, milk and other animal products, it is conservatively estimated that pastoralism’s official contribution to Ethiopia’s GDP is undervalued by more than 50 per cent’.¹³⁶ A comprehensive review in 2010 talks of a ‘major systematic undervaluation of the economic contribution of pastoralists to the national economy: i. poor information on pastoral systems ... ; ii. magnification of formal trade over informal trade (domestic and cross-border) ... ; iii. lack of information on the value of non-marketed outputs, both domestic consumption and the contribution to crop-farming via draught animals

and manure'.¹³⁷ The Integrated Surveys on Agriculture of the Ethiopia Socioeconomic Survey (ESS), the main survey of the Central Statistical Agency (CSA) of Ethiopia, focuses on districts (*woreda*) classified as 'agro-pastoral', therefore capturing pastoralists when and where they also practice crop farming but mostly missing them out when they do not. Well short of half of the total cross-border livestock trade has been captured in national statistics.¹³⁸

The cost of losing pastoralism. Between 2002 and 2012, Ethiopia spent over \$730 million per year in drought-related response, with just \$3.3 million on disaster prevention and preparedness (DPP). On average, donor funding on DPP has been 0.59 per cent of humanitarian aid.¹³⁹ The current level of representation of pastoral systems in public data allows only a marginal and partial understanding of the cost of dismantling the pastoral economy, for example in terms of reduced exports, food (milk and meat) production and increased needs for food aid. Those pastoralists who have become destitute, even if in the hundreds of thousands, are few in comparison to those who continue to make their living within these systems. A large proportion of the estimated 12 million people in pastoral systems in Ethiopia, perhaps the vast majority of them, is squeezed in the vulnerable region of the wealth spectrum. The economic and ecological consequences of letting this vulnerable majority cease following their livelihood as pastoralists – or indeed pushing/pulling them out – have not yet been estimated but are bound to be unsustainable.

THE INSTITUTIONAL LANDSCAPE IN ETHIOPIA

Following regime change in 1991, the introduction of ethnic federalism with the 1994 Constitution,¹⁴⁰ and the first Economic Development Strategy in 1994, Ethiopia has embarked on a remarkably peaceful and fast-paced journey aimed at reaching middle-income country status. The strategy adopted to achieve this goal has undergone successive adjustments. In particular, the shift from the first to the second Agricultural Development-Led Industrialisation (ADLI) strategy in 2005, and the first Growth and Transformation Plan (GTP I) for 2010 to 2015,¹⁴¹ marked: (i) a move away from an exclusively state-driven approach to an opening up to entrepreneurs and foreign investors; and (ii) a shift of emphasis from peasants as the engine of economic growth to commercial agriculture, industry

and urban sectors, with benefits for small-scale producers in agriculture now expected to be mostly indirect.

After 2011, the project of fast economic growth was blended with the principles of the 'green economy'.¹⁴² The Second Growth and Transformation Plan (GTP II) for 2015 to 2020 promised 'aggressive measures towards rapid industrialisation and structural transformation', and included 'building [a] climate resilient green economy' as one of its nine strategic pillars. Throughout these adjustments, the Ethiopian agricultural sector, dominated by small-scale producers, is consistently represented as underproductive.

The impression from the literature is that under the first ADLI strategy, development efforts were predominantly directed at small farmers, who were supposed to become the engine of economic growth. From 2000 onwards, it became clear that this strategy was not generating the expected returns. Since 2005, the emphasis in economic growth has shifted from building on small-scale agriculture to promoting large-scale resource extraction in order to fuel agribusiness, industry (including hydroelectric power generation) and mining. Within this new strategic approach, attention has concentrated on the lowlands.¹⁴³ There are political and economic rationales for this choice: (i) the lowlands represent 50 to 60 per cent of Ethiopia's land area but are home to only 12 per cent of the population – from a highlands' perspective the lowlands appear 'empty' and underused;¹⁴⁴ (ii) historically under-represented in public data, the lowlands appear least productive and therefore more 'expendable'; (iii) significantly higher population density in the highlands makes them the primary concern with regard to political consensus.

In a highlands–lowlands productivity gradient, constructed on poor data and the impact of 'technical exclusion',¹⁴⁵ pastoral systems represent the lowest section. A widespread preconception that 'modern' is better than 'traditional', urban better than rural, and imported technical knowledge better than local knowledge, easily supports this view.

In the midst of extraordinary and largely successful changes under the present regime, an element of continuity with the practices of the previous regime has been highlighted in the literature, namely the assumption that sedentarisation is the only possible route for the 'development of pastoral communities'. In the past, sedentarisation was presented as emancipation from a backwards state and the necessary first step of development. Today sedentarisation is promo-

ted for increasing productivity and resilience in the face of the perceived ‘crisis of pastoralism’.¹⁴⁶ Yet this is at odds with well-established evidence that links pastoral productivity to mobility, and points at the processes constraining mobility as being responsible for the recent vulnerability of pastoralism to environmental shocks. Periodic reality checks since 1991 have allowed for adjustments to much more fundamental aspects of Ethiopia’s development strategy, suggesting that there might be hope that this issue too will eventually be reconsidered.

Policies and institutions of direct relevance to pastoral development intervention are listed below.

Rural Development Policies Strategies paper (2003).¹⁴⁷ Focuses on crop cultivation but includes elements of policy on pastoral development. The core strategy is to reduce pastoralist mobility in the short and medium term and, in the long term, transform pastoralists’ way of life through settlement and irrigation programmes.

Sustainable Development and Poverty Reduction Program (2003).¹⁴⁸ Includes a section on pastoral development, which describes pastoralism as a method of agricultural exploitation based upon herding and mobility. The document acknowledges the importance of pastoralist expertise and the necessity of taking it into consideration if development is to be successful. It also recognises the need for grassroots participation in the design and implementation of pastoral development. Despite these premises, the course of pastoral development appears to be already set in the policy: ‘Such a development agenda could well be effected only if the people can somehow be settled. Selective settlement programs are believed to be the only viable options in the long run ... [and] the objective is to settle the pastoral population’.¹⁴⁹ The strategies through which this is to be carried out are: (i) the sedentarisation of mobile pastoralists on a voluntary basis; (ii) the consolidation and stabilisation of those who are already settled or semi-settled through improved water supply, pasture and social services; (iii) the careful selection of viable and reliable river courses for future sedentarisation based on irrigation, and the linking of these places through roads and other communication lines; (iv) the holistic provision of mobile social services (including health and education) for those that continue to be mobile.

Agriculture Sector Policy and Investment Framework (PIF 2010–2020).¹⁵⁰ A strategic framework for planning and prioritising the investment meant to

drive Ethiopia’s agricultural development in line with the Growth and Transformation Plan (GTP) and in the context of the Comprehensive Africa Agriculture Development Programme (CAADP). The PIF follows the GTP in its representation of the livestock sector as under-productive. Priorities highlighted in the strategy include: (i) improved livestock feed in both the highlands and lowlands through improved rangeland management; (ii) improved breeds; (iii) expanded animal health services including private veterinary pharmacies and community animal health-care systems in the pastoral lowlands; and (iv) improved marketing of livestock and livestock products for both domestic and export markets, particularly the Gulf states.

First Growth and Transformation Plan 2010/11–2014/15 (GTP I) and Second Growth and Transformation Plan 2015/16–2019/20 (GTP II).¹⁵¹ GTP I includes two strategic directions for pastoral development: (i) enhancing the outcome from livestock development in line with the pastoral livelihood system, and enabling pastoralists to benefit from the outcomes of the development process (expanding a prevention-oriented livestock health system, improving the supply of water and pasture, and strengthening the livestock marketing system); (ii) encouraging sedentary agricultural development (voluntary-based and irrigation-centred) as a key to sustainable ‘pastoral community development’. GTP II uses the term ‘pastoral development’ just once, in conjunction with crop farming.¹⁵² The plan divides the livestock sector into three agro-ecological zones and calls for separate livestock development strategies for each: (i) a highland/mid-altitude agro-pastoral zone with adequate moisture; (ii) a highland/mid-altitude agro-pastoral zone with moisture stress; (iii) a lowland pastoral and semi-pastoral agro-ecological zone.¹⁵³ Semi-pastoralism is mentioned one more time, but it is not defined.¹⁵⁴ A discussion of livestock development ‘in pastoral and arid areas’ emphasises crossbreeding or the reproduction of selected local breeds, the expansion of modern ranches carried out by private investors,¹⁵⁵ the strengthening of the pastoral extension service system, and integrating the implementation of social service institutions and infrastructures and institutional capacity building. Meanwhile, potable water supply projects for humans and livestock are to be designed and feasible irrigation technologies using surface and ground water will be selected and implemented.¹⁵⁶

Ethiopia’s Climate Resilient Green Economy (2011).¹⁵⁷ A vision to build a middle-income, climate-

resilient green economy by 2025 through zero net carbon growth (in accordance with GTP I). The suggested intervention in terms of pastoralism is to '[reduce] headcounts and lower per animal emissions in herds through higher productivity and off-take rates at early ages. Sub-components include commercialisation, improved health services, improving market efficiency and infrastructure, strengthening linkages to neighbouring medium-highland feedlot systems, promoting the sale of animals when they are young, improved early-warning systems for extreme weather conditions, breed improvement through selection and improved feed and feeding systems for a subgroup of pastoralists'.

National Strategy on Prosopis juliflora Management (2017).¹⁵⁸ One section in particular stands out for its implications for pastoralist mobility.¹⁵⁹ Actions envisaged under a discussion of problems associated with *Prosopis juliflora* (an invasive weed) fall under two categories: (i) early detection and rapid response; and (ii) controls over livestock movement. Livestock is identified as 'the major agent of *Prosopis* spread'. Actions to prevent this spread by livestock include: 'Map out livestock routes so invasion can be prevented along the routes and from a *Prosopis*-invaded area to a *Prosopis*-free-zone. Strengthen border and pre-border controls where livestock routes are known in order to prevent further *Prosopis* spread ... Declare *Prosopis*-free-zones and prevent movement of livestock into these areas from infected areas ... Removal of *Prosopis* from known major livestock routes is a priority'. Whether these measures will be implemented with a focus on preventing the spread of *Prosopis* in order to help pastoralism rather than a focus on constraining pastoralists' mobility to prevent the spread of *Prosopis* will depend on the overall direction of the implementations.

Policies and proclamations on land management at federal and regional level. These policies and proclamations have been recently reviewed by the IGAD Centre for Pastoral Areas and Livestock Development as part of a study that also included Kenya and Uganda.¹⁶⁰ Overall, the study notes that 'Contrary to the African Policy Framework, which supports free movement of pastoralists even beyond national boundaries, the national policies are in favour of sedentarisation, small-scale and commercial farming, ranches, and reserves for parks and games'.¹⁶¹ The legislation produced by regional governments are found to replicate those of the federal government: 'None of

them has attempted to contextualize the Federal policies/proclamations to the socio-economic and agro-ecological conditions of their respective Regional States'.¹⁶²

Works for the Policy Strategy Framework on Pastoralism, Ministry of Federal and Pastoralist Development Affairs (MoFPDA). A draft policy in Amharic was presented at the National Consultative Workshop on Pastoral Development and Pastoralism in Ethiopia, held in Addis Ababa on 21 March 2017.¹⁶³ The draft was organised into 13 thematic areas. The first one was 'voluntary villagisation', also described as 'people-centred development'. Participants pointed out that, while presented as embracing the principles of 'people-centred development', the policy fell short of engaging with the reality of mobile and cross-border pastoral production, showing a poor understanding of pastoral systems and their use of the land. In the words of a pastoralist leader: 'Pastoralists do not just move in search of water and pasture but also to improve productivity. These other reasons are ignored at the moment. Pastoral land should be certified as such, not considered as empty land ... Pastoral land use should be incorporated as one of the formalised uses within the policy document'. In July 2017, MoFPDA, in collaboration with Mercy Corps, the USAID core advisory team to the ministry, and other development partners, decided to rework the draft policy document. A background study was ready by June 2018,¹⁶⁴ and a new draft of the policy was finalised in December.¹⁶⁵ As of June 2019 the document had not been ratified.

*Pastoralist Affairs Standing Committee.*¹⁶⁶ Realises the rights of pastoralists enshrined in Ethiopia's Constitution and aims to bring about rapid development aimed at changing pastoralists economic and social life (qualified as 'backwardness'). Amongst the objectives are: (i) '[building] the capacity of the pastoralists in a short time ... with especial emphasis on ... boarding and mobile schools as well as other educational facilities depending on the situation'; (ii) '[making] sure that the government has allocated and implemented budget[s] to facilitate the provision of food and water as well as health services to the livestock of the pastoralist and marketing infrastructure development'; (iii) '[ensuring] that the villagization programs to be undertaken in the pastoralist areas are based on the will of the pastoralists and the basic infrastructure development services have been built'; (iv) '[raising] the productivity of pastoralists' livestock

along with enabling the benefit from agricultural products'. The committee also supervises two government institutions: the Livestock, Dairy Products and Marketing Development Authority, and pastoralist sectors established in the pertinent offices.

Growing specialisation in pastoralism within higher education. Several universities in Ethiopia are striving to achieve the status of 'centres of excellence' in pastoralism. At Jigjiga University, the Institute of Pastoralism Studies offers bachelors and masters degrees, and it is planning to launch the East African

Journal of Pastoralism. A common course on pastoralism and pastoral policy in Ethiopia was introduced in 2015 at the universities of Bule Hora, Jigjiga and Samara.¹⁶⁷ The course was produced by a team of twenty scholars across a broad disciplinary spectrum in collaboration with the UK-based IIED and Tufts University in the United States. Interest in pastoralism is also present at the universities of Mekelle, Haramaya and Jinka. A new university for Borana is under construction in Oromia regional state, and it is already planning to hold a specialist course on pastoralism.

Defining the axes of activity

This final section wraps up the information provided so far, recalls the principles of people-led development as embraced by MISEREOR and unpacks their relevance to the context of operation. Finally, the analysis is translated into six axes of activity for MISEREOR's engagement with pastoral development in Ethiopia.

A SYNTHESIS IN THE CONTEXT OF OPERATION

In most of Ethiopia, environmental variability is high and becoming even more pronounced as a consequence of climate change. Local adaptation to take advantage of these conditions is based on matching environmental variability (in inputs) with variability integrated in the processes of production. Variability in processes of production is particularly evident in pastoral systems, especially in mobility and communal forms of land tenure and resource management, but it is common also in crop-farming systems that developed under highly variable conditions in mountain and dryland regions.

Interventions that undermine the adaptive interface between these food production systems and their highly variable environments, or that aim at replacing this interface with one that is more rigid and static, can be expected to reduce the resilience, economic efficiency and ecological sustainability of these systems.

The strategy of dramatically increasing the productivity of crop farming in the highlands has not led to expected results. The resources in the lowlands are now seen as critical to the project of national development through fast economic growth.

Development in Ethiopia has mostly operated on the assumption that something is inherently wrong with pastoralism, and therefore pastoral development means development *out of* pastoralism. This assumption has also supported a conviction that the productivity of the livestock sector cannot be increased as long as it depends on pastoralism – in other words, that pastoralism cannot be improved because it is already operating at its upper limit.

Both the impact assessment and implementation of development programmes are suffering from the general deficit of information on pastoral systems, from the way they function, to their economic value, and the systemic implications of the transformative changes that are being introduced.

People in pastoral systems have adapted all along, but often at the price of replacing well-rehearsed strategies with unfamiliar, uncoordinated and sometimes unsustainable solutions introduced 'just for now'. Many of these solutions are now entangled with the legacy of problems from ill-fitting interventions in the past.

Even so, some producers have been able to take advantage of changes in the operational context, especially new incentives and new opportunities for

marketing and wealth accumulation. Wealthier pastoralists are pushed up by structural transformations while poorer pastoralists are penalised. Inequality is on the increase.

Pastoral systems today are made up of a relatively small proportion of medium- and large-scale producers, and a vast impoverished majority of possibly around 12 million people who are vulnerable to even routine dry seasons and who are increasingly at risk of destitution.

Behind the impression of permanent crisis, and despite periodic losses to drought and other calamities, overall livestock production in the country appears to have increased over the years to record numbers.

PEOPLE-LED DEVELOPMENT: SOME RELEVANT PRINCIPLES¹⁶⁸

- Build on available resources and support locally driven processes.
- Provide space for participation and dialogue, and facilitate people's own analysis, plans and solutions using creative facilitation tools.
- Reduce the potential for (violent) conflict and create the conditions for peaceful coexistence.
- Gradually achieve more just living conditions, above all for the poor and disadvantaged.
- Strengthen civil society organisations.
- Put development agencies' internal regulations and funding mechanisms to the test of pastoral development operating conditions.

ANALYTICAL CONSIDERATIONS

The starting point. Pivotal to the challenge of defining axes of activity in pastoral development in Ethiopia seems to be the question of whether pastoral development means development *of* pastoralism or *out of* pastoralism.

Building on existing resources. From a people-led development perspective, the answer is straightforward: pastoral development means the development *of* pastoralism – building on existing resources and locally driven processes, including pastoral systems (both as existing resources and as creators of resources) and their adaptive strategies (as locally driven processes). Here there should be no ambiguity on the meaning of resources as *pastoral* resources, defined in relation to producers in pastoral systems, and their adaptive/variable processes when engaging with the

environment. In this light, for example, a crucial 'resource' to build upon would be pastoralist strategic mobility; another would be flexible access to rangeland; yet another would be social capital and networking with other groups.

Supporting locally driven processes. With the exception of those producers who have chosen to give up pastoralism, supporting locally driven processes in the context of pastoral development means supporting pastoralists in their livelihood strategies *as producers in pastoral systems*. In particular, this means supporting their efforts to make use of their specialisation to take advantage of dryland variability. It also means helping pastoralists overcome the challenge of disentangling themselves from the legacy of rigid/static settings introduced by ill-fitting development interventions and people's consequent adjustments and maladaptations. Not all 'locally driven' processes are automatically desirable, not even from the perspective of those who drive them.

Targeting the poor and disadvantaged. Working with the poor and the disadvantaged in the context of pastoral development means working with the large majority of pastoralists. A crucial aspect of their disadvantage is their vulnerability to losing their livelihoods by dropping out of pastoral systems.

Productivity of pastoral systems. Even beside the people-led development framework, conceptualising pastoral development as development *out of* pastoralism is at odds with history. The assumption that pastoral systems in Ethiopia are *inherently* unproductive and unsustainable (therefore no development can stem from them) has too often been taken as self-evident. The available evidence however, albeit fragmentary, points consistently in the opposite direction. Available records indicate long-term stability, or even increase, in the aggregated livestock holdings of Ethiopian pastoral systems (despite periodic fluctuations). Livestock exports, almost entirely supplied by pastoral systems, are also believed to have increased substantially over the years.¹⁶⁹ This has happened at the same time as pastoral systems have experienced underinvestment from development, and indeed severe, sustained reduction in rangeland. This stability or increase in output from reduced input can only have been achieved through an overall increase in productivity. The assumption that the productivity of the livestock sector cannot increase as long as production depends on pastoralism would therefore appear to be incorrect.

Limiting mobility. The current trend is to represent mobility as a lesser evil in the face of drought, accepting it when it is unavoidable, but otherwise investing in reducing it. A technical problem with this approach is that pastoralist mobility cannot be an improvised or extemporary practice. Mobility – or, as described in the *African Union Policy Framework on Pastoralism*, ‘strategic mobility’ – takes significant skill, social organisation, specialised institutions, an extant network of social capital and animals accustomed to it. Limiting mobility to unavoidable circumstances means losing these assets in the long term, and eventually leaving pastoralists under-equipped in the face of drought.

Cost–benefit analyses of dismantling pastoral systems. The historical under-representation and misrepresentation of pastoral systems in public data remains an obstacle to sound cost–benefit analysis in dryland development. There is therefore a strong risk that the actual economic costs of dismantling pastoral systems (development out of pastoralism) will only become manifest when it is too late. This route looks even more hazardous when its social and political implications are considered.

Vulnerability to drought. The current vulnerability of small-scale producers in pastoral systems, to shocks and stresses (often though not always ecological in origin), is largely a legacy of ill-informed development and the ways producers have tried to adjust to it. Over several decades, direct and indirect outcomes of development have reduced pastoralists’ options for managing environmental variability. Well-rehearsed, flexible processes have been replaced with rigid and unfamiliar settings. Not surprisingly, today even normal dry seasons are a threat to the (increasingly isolated) poorest producers.

Pastoralists as ‘agro-pastoralists’. As soon as pastoralists take up some kind of farming, they stop being considered pastoralists through and through, and their official description changes to ‘agro-pastoralists’. This seems to happen even when keeping livestock is what the producers in question do best and value most. It also seems to be independent of the fact that they actually see themselves as pastoralists. There is a bias in the use of the category ‘agro-pastoralist’ towards considering the practice of crop farming somehow especially significant and worthy of attention. There is no scientific basis to this.

Violent conflict. Violent conflict plays a major role in undermining long-term resilience and productivity

in pastoral systems (directly, by destroying lives and resources; indirectly, by dramatically reducing access because of insecurity). A great deal of current conflict has historical roots, and this includes unplanned development outcomes exacerbating latent conditions of enmity and creating new ones.

Mobile citizens, governability and service delivery. All over the world, people’s mobility has increased with modernisation. The most obvious examples are the proliferation of roads and airports, and the market in mobile phones. With the internet, mobile phones and GPS traceability, people can now be reached and located *while on the move* more than ever. A range of virtual addresses is added to people’s physical address as people are seldom ‘at home’. Becoming more and more efficient in governing people as they become more and more modern and mobile seems therefore an unavoidable trajectory in the modernisation of governance. Along the same lines, when the delivery of basic services is challenged by the mobility of citizens, it is the system of delivery that is struggling to catch up with modern times, not the citizens.

Modernisation. The aim for modernisation needs to outgrow the ‘cosmetic stage’ (focusing on whether or not people and their material culture ‘look’ modern) and finally engage with the functional level: how can the functional relationships in well-rehearsed production systems be developed by scientific research and technological advancement? Answers to this questions can only be found in conversation with the producers. Supporting research and innovation therefore also means supporting participation and a vibrant civil society amongst producers.

STRENGTHENING PASTORAL SYSTEMS: SIX AXES OF ACTIVITY

The overarching objective of our commitment to pastoral development is strengthening pastoral systems. We understand this objective in line with the IUCN’s aforementioned four dimensions of ‘minimum standards in pastoral development’.¹⁷⁰ We pursue this objective through the six axes of activity described below.

1. Learn to recognise the variability integrated in pastoral systems and support it.

Pastoralists’ customary institutions and management practices integrate variability in the processes of pro-

duction, which is key to their specialisation and takes advantage of the variability in input characteristic of their environment. Productivity and resilience in pastoralism depend, first of all, on the match between these two dimensions of variability. Efforts to eliminate variability over the years have undermined this relationship and the processes that produce it. Sound pastoral development projects engage with this fundamental issue by, among other things: (i) learning to recognise functional variability in pastoral systems and supporting it; and (ii) learning to recognise the obstacles put in place by past interventions, refraining from reproducing them and when possible reducing or removing them.

2. Increase strategic options for pastoral producers, especially for targeting concentrations of pasture resources.

The efficient tracking of concentrations of nutrients for livestock – arriving in the right place at the right time – is key to resilient, productive and sustainable pastoral systems. For the time being, mobility remains pastoralists' main or only strategy for taking advantage of scattered and short-lived opportunities in the drylands, and for managing occasional extreme conditions such as droughts or floods. Pastoral development projects help expand the options for targeting concentrations of pasture resources, starting from increasing options for pastoralist mobility within the law, and engaging in dialogue with the government for the legal recognition of the economic value of pastoralist mobility.

3. Create appropriate and sustainable water supplies in strategic locations.

Drylands suffer from a legacy of inappropriate water supply and a proliferation of disused and malfunctioning water points. New water supplies alter contextual access options and can generate competition or eliminate livelihood opportunities. In the drylands, who controls water controls land. Water attracts settlements, which in turn can precipitate unsustainable concentrations of people and livestock, overgrazing and deforestation, and even conflict. Decisions about new water supplies are therefore highly sensitive and do not necessarily follow the sectoral logic that 'more is better'. Pastoral water development interventions are designed in context, to provide water in support of a particular pastoral system; they are designed based on a sound understanding of the whole system

over at least a full-year cycle, and in light of current patterns of resource use (including seasonal dynamics) by different groups of stakeholders.

4. Improve access to well-adapted services.

Producers in the drylands, and especially in pastoral systems, are amongst the poorest in terms of access to services, including markets, no matter their level of wealth. Service provision tends to favour settlements and conditions of relative uniformity and stability. Yet in large regions variability is the rule. Formal education, when limited to the school system, is particularly challenged by variability, but even the provision of services related to the market is often locked into thinking in terms of fixed infrastructures. In pastoral development, sound service provision adapts to the context rather than feeling challenged by it. Standard quality services are not conditional on exiting the pastoral system but fit in with its specialist strategies and living conditions.

5. Support the understanding and visibility of pastoralism.

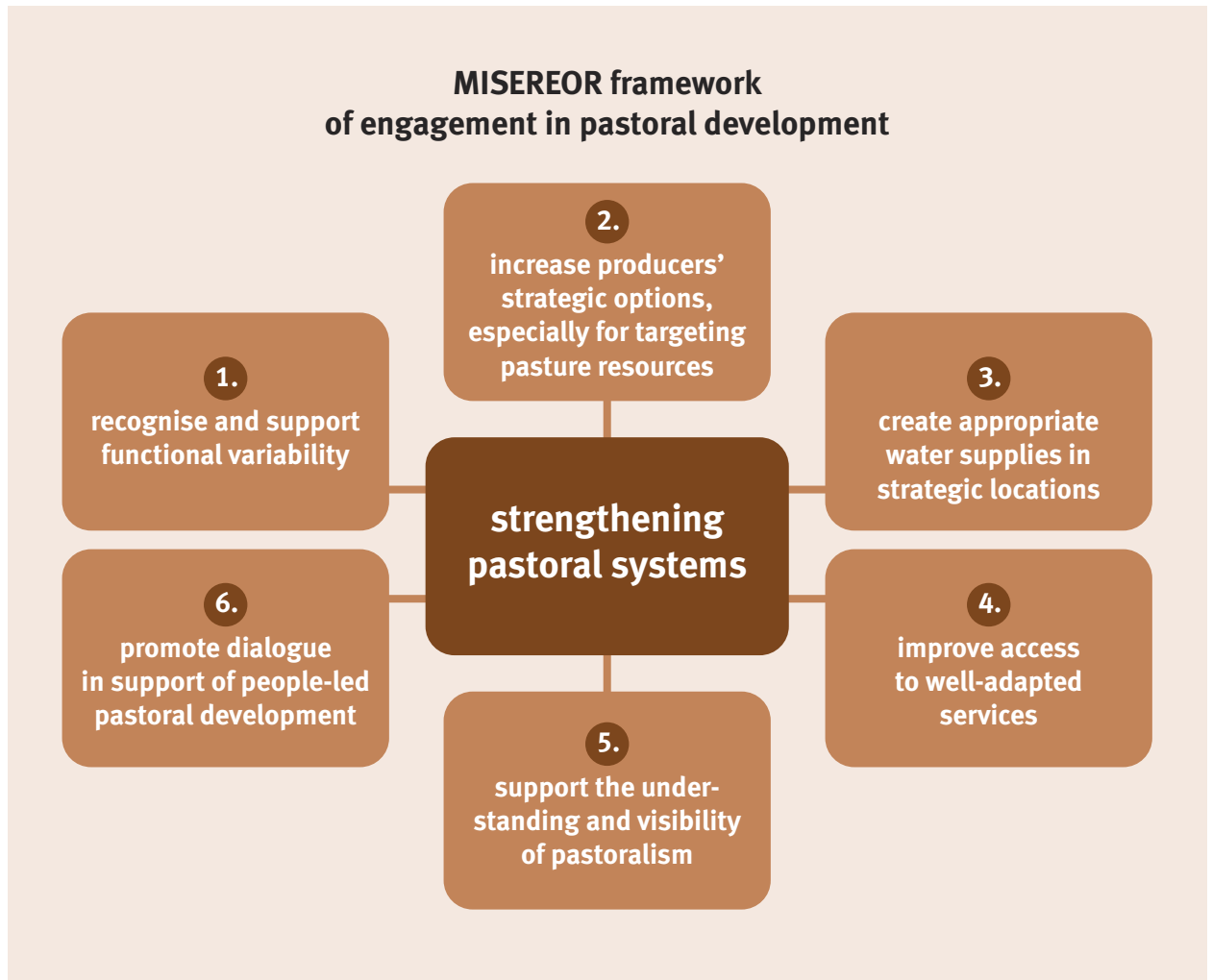
The scarcity of reliable data about pastoral systems is a major hindrance to effective and efficient interventions in pastoral development. The communities and the areas where interventions are most needed are usually also those where baseline data are meagre or non-existent. By and large, existing data about pastoral systems in Ethiopia remain scattered and hard to access. There is a need to distinguish between datasets generated from updated theory and methods, with an understanding of variability as normal, and the datasets generated from the assumption that variability is a problematic anomaly. Clear criteria for navigating through these differences in the knowledge base are not always available to practitioners. Pastoral development includes supporting the production and management of much needed data on pastoralism, as well as work that can help the navigation of existing knowledge/data by non-specialists.

6. Promote dialogue in support of people-led pastoral development.

Decades of policies and interventions informed by misleading assumptions have left a complicated legacy with impacts on livelihood systems on the ground, the legal and policy environment, and people's hearts and minds on all sides. The present appears to be gradually overcoming this legacy. It is a delicate

process, one that in order to succeed needs the sound involvement of all parties, especially primary producers and state authorities with their technical and financial partners. Pastoral development inclu-

des promoting, supporting and monitoring opportunities for dialogue between all stakeholders at the regional and national level, and this should be aimed at communicating the full value of pastoral systems.



Conclusions

For decades, rural development interventions in the drylands have been informed by inadequate assumptions. Their intended and unintended outcomes have combined with a variety of ‘just for now’ adjustments with not always desirable effects, as different producers have tried to cope with the pressure. Few have benefited, and probably none in any sustainable way.

Today, small-scale food producers in the drylands, and pastoralists in particular, are hostages of this legacy. Their key resources are curtailed. Their freedom to manage their environment is limited. Their capacity to make use of their own adaptive production strategies is restricted. Their customary institutions are weakened. Their complex and dynamic patterns of crop–livestock integration have been simplified and fixed. Their households have been split between village-based basic services and mobility-based productivity. Their social mesh is torn and their safety nets are jeopardised by the increasing polarisation of wealth. Their dignity and future existence in their profession and livelihood are undermined.

Hugely flexible and adaptable as always, pastoral systems have so far been capable of maintaining relatively stable production levels between periodic droughts, even increasing them overall. While familiar options have been closed to them, pastoralists have managed to open new ones. They have, mostly successfully, dodged the worst consequences of unfavourable change, and tapped into new opportunities that, if often ill-fitting, have arisen along the way.

This remarkable achievement, however, comes at the cost of reducing resilience and sustainability. While wealthy and well-connected producers have been able to benefit from present conditions, there are signals that the majority of perhaps 12 million Ethiopian pastoralists are becoming increasingly vulnerable to even relatively standard conditions of stress. Youths and above all women are paying the highest price. There is a sense of impending social and economic tragedy, and a need to take action before the process of deterioration tips into real chaos, although no one knows how long it might take.

A long wave of reflection within pastoral development, and concern voiced by pastoralist social movements, have created the conditions for a much-needed change of approach. We are finally capable of recognising the characteristic ability of pastoral systems to take advantage of environmental variability, and the rationality of building on it for development. While investing in this new approach, the legacy of the past has to be acknowledged and dealt with.

We are committed to support initiatives aimed at strengthening pastoral systems before it is too late.

Annex 1:

The process behind this orientation framework

Following the 2011/12 drought in East Africa, MISEREOR funded a series of projects to enable smallholder farmers and livestock keepers to increase their resilience against shocks and crisis. A policy decision was made to engage in projects working specifically with pastoralists, whereas in the past interventions had focused on alternatives to pastoralism (e.g. irrigated agriculture), often competing with pastoralism for the same resources.

Acknowledging the need for a much deeper understanding of pastoralists' livelihoods and the logic of pastoral production, and the historical roots of the present problems, led to the start of a learning process within MISEREOR and between MISEREOR and its partners.

In March 2015, introductory training was offered to all partners working with pastoralists in Ethiopia. The training was based on the model developed by IIED and Tufts University, and delivered by Pastoralist Forum Ethiopia. In November 2015, four of the then five pastoral development projects funded by MISEREOR met in Omorate. An agreement was made to embed a systematic learning process over the following three years of project activity. This was to be supported by a process-oriented consultation with a pastoralism specialist, Saverio Krätli, working closely with the MISEREOR pastoralism advisor in Ethiopia, Atsbaha Gebre-Selassie, and MISEREOR headquarters in Aachen, Germany.

A 'learning unit' was set up, staffed by one member from each project, committed to the equivalent of one day per week, and directly supported by their respective project directors. The main focus was to open up a space for dialogue with pastoralist communities through the framework of a longitudinal livelihood-analysis exercise, with periodic cross-project meetings for reflection and feedback. The consultants also made contact with institutions working on pastoralism in Ethiopia, with the objective of liaising projects with the broader network of pastoralism scholars and practitioners, and with other relevant ongoing interventions. The outcomes of the work of the learning unit contributed to the writing of the Orientation Framework.

The first draft of the Orientation Framework was submitted to MISEREOR in September 2017. Between October 2017 and February 2018 the draft underwent review within MISEREOR and by a number of stakeholders in Ethiopia, including partner organisations, technicians and policy-makers, Pastoralist Forum Ethiopia and pastoralism specialists within key academic institutions. Revision took place between March and September 2018. A second round of feedback was solicited between December 2018 and February 2019, and a new draft was completed in June 2019.

Annex 2:

Myths about pastoralism

A range of misunderstandings and misrepresentations of pastoralism have been produced over the years due to prejudice, faulty assumptions or simply inadequate information. These misconceptions, sometimes referred to as ‘myths’, have been inventoried and disproved in scientific publications and even in policy briefs over the last forty years.¹⁷¹ This annex collects some of the most damaging and persistent ones. The sources cited also provide evidence against the myths, though that evidence is not included here for the sake of brevity. If you find yourself in agreement with any of the statements below, you have missed some important update!

A UNDP INVENTORY OF MISCONCEPTIONS¹⁷²

1. Nomadic pastoralism is an archaic form of production, whose time has passed.
2. Mobility is inherently backward, unnecessary, chaotic and disruptive.
3. Most rangelands are degraded as a result of pastoral over-grazing.
4. Pastoralists do not take care of the land because of the Tragedy of the Commons.
5. African pastoralists do not sell their animals.
6. Pastoralists contribute little to national economic activity.
7. Pastoralism has very low productivity.
8. Sedentary cattle rearing is more productive than mobile systems.
9. Pastoral techniques are archaic; modern scientific methods need to be introduced.
10. Pastoralists need to settle to benefit from services.
11. All pastoralists are rich; alternatively, all pastoralists are poor and food insecure.

FOUR MYTHS ABOUT ‘PATRIARCHAL PASTORALISTS’¹⁷³

12. Economic: men own and control cattle, and they play the primary roles in livestock production.
13. Political: pastoral societies are gerontocracies (elder men dominate the political sphere); pastoral women are relegated to the domestic sphere.
14. Social: pastoralists are patriarchal and patrilocal; men serve as the key nodes of social interaction and influence.
15. Cultural: pastoralist men see themselves and are seen by others as the ‘real’ pastoralists, denigrating not only women’s roles and responsibilities as women but also their identity as pastoralists.

AND MORE...

16. Pastoralists wander in search of water and pasture. *False:* Migrations are risky and therefore planned with care. Herders make their move only once they know where they are going and what they are going to find along the way and at their intended destination. The African Union Policy Framework on Pastoralism talks of ‘strategic mobility’.¹⁷⁴
17. It is in the interest of individual pastoralists to overgraze the commons. *False:* As nutrients are not uniformly distributed across pastures, quantity is not a good proxy for quality: productivity increases with feeding selectivity, not with biomass intake. Overgrazing means a poorer diet, therefore lower productivity.¹⁷⁵
18. Modernisation and mobility are incompatible. *False:* People’s mobility is much higher in modern contexts. From livestock vaccinations to motorised transport and mobile phones, pastoralists have consistently embraced every aspect of modernisation relevant to their livelihood.¹⁷⁶
19. Productivity cannot increase within pastoral systems. *False:* Livestock holdings in pastoral systems are higher than ever, despite sustained and substantial reductions in rangeland over the last 50 years. Increased output with decreased input means that productivity has increased.

Annex 3:

Formal declarations by pastoralist social movements¹⁷⁷

- 2001. Inari (Anár) Declaration, on the occasion of the 2nd World Reindeer Herders' Congress, Association of World Reindeer Herders (WRH), Inari, Finland, 18–22 June 2001.
- 2005. Yakutsk Declaration, on the occasion of the 3rd World Reindeer Herders' Congress, Association of World Reindeer Herders (WRH), Yakutsk, Sakha Republic, Russia, 17–20 March 2005.
- 2007. Segovia Declaration of Nomadic and Transhumant Pastoralists, World Alliance of Mobile Indigenous Peoples' gathering, La Granja, Segovia, Spain, 8–16 September 2007.
- 2009. Kautokeino Declaration, on the occasion of the 4th World Reindeer Herders' Congress, Association of World Reindeer Herders (WRH), Kautokeino, Norway, 30 March–3 April 2009.
- 2010. Mera Declaration of the Global Gathering of Women Pastoralists, World Alliance of Mobile Indigenous Peoples' gathering, Mera, India, 21–26 November 2010.
- 2013. Aoluguya Declaration, on the occasion of the 5th World Reindeer Herders' Congress, Association of World Reindeer Herders (WRH), Aoluguya, Inner-Mongolia, China, 25–28 July 2013.
- 2013. Kiserian Statement of Pastoralist Leaders, World Alliance of Mobile Indigenous Peoples' gathering, Kiserian, Kenya, 9–15 December 2013.
- 2015. Hustai Declaration by Pastoralist Organizations from Central Asia, Hustai National Park, Mongolia, 25–29 July 2015.
- 2015. Koblenz-Ehrenbreitstein Declaration of the European Pastoralists Assembly, organised by European Shepherds Network in Koblenz, Germany, 26–28 June 2015.
- 2016. Déclaration de Bamako, by participants at the regional workshop 'Construction d'un environnement propice au développement durable du pastoralisme en Afrique de l'Ouest et du Centre', Bamako, Mali, 7–9 January 2016.
- 2016. Déclaration d'Hammamet, by participants at the regional workshop 'Construction d'un environnement propice au développement durable du pastoralisme en Afrique du Nord et en Asie Occidentale', Hammamet, Tunisia, 14–16 January 2016.
- 2017. Jåhkåmåhkke Declaration, on the Occasion of the 6th World Reindeer Herders' Congress, Association of World Reindeer Herders (WRH), Jokkamohkki, Sweden, 16–20 August 2017.
- 2018. Declaration of the European Shepherds Network, Oloron-Sainte-Marie, France, 15–18 September 2018.

Annex 4:

Pastoral Water Development (PWD)

AVAILABLE KNOWLEDGE

- In drylands, access to water means access to land (a land tenure tool).
- Pastoralists do possess knowledge of water management (including institutions), and therefore they can and should be allowed to play an active role at all stages of decision-making.
- It is necessary to have a sound understanding of the use of local resources (water and pasture) before any intervention.
- The planning, management and sustainability of water points are as important as the physical infrastructure.
- To limit the risks associated with ‘new water’, PWD should focus on rehabilitating existing water points (after assessing why they were created in the first instance and how they have been used).
- Increasing the density of water supplies, especially dry-season ones, alters the balance of advantage between owners of different species of livestock.
- Technologies of water supply (e.g. the installation of mechanical pumps) are likely to affect the demand for labour (for watering), which is also a source of income for poorer pastoralists.

KNOWN PROBLEMS

- Full functionality is often relatively short term.
- Proliferation of disused and damaged water points.
- Large water points lead to land degradation.
- The quality of new water is lower than already available alternatives.
- Ownership by local administrations is associated with poorly controlled access and poor maintenance.
- Water provision that favours settlement effectively favours people who already have a sedentary livelihood (even if elsewhere) over those who have a mobile livelihood (even if nearby).
- New water points, especially when ‘public’ or ‘free access’, can trigger violent conflict over access and control.
- New water alters contextual access options and can generate competition or eliminate livelihood opportunities (e.g. for labour).

KEY QUESTIONS

How is the new water going to relate to the pastoral system and its different users?

What impact will it have on patterns of resource use? What impact will it have on the variability embedded in production strategies?

Water to do what?

Taking pressure off migration? Increasing pastureland and productivity? What impact will it have on livestock numbers?

Water for whom?

Cattle or camel systems? Wealthy or poor? Local administration or final users? Technical knowledge or local knowledge? What impact will it have on competition and/on social relationships? What impact will it have on land tenure?

Water to go where and when?

Dry-season rangelands or rainy-season rangelands? Grazing reserves? Critical points along itineraries of migration? What impact will it have on the environment and animal and human health?

Water when and for how long?

Continuous or intermittent? Seasonal? Deliberately time-limited? What shelf life?

How is water managed?

What relationship will it have with customary water management systems? What risk is there of conflict?

Notes

- 1 There is no consistency in the technical literature on pastoralism with regard to the use of ‘pastoral’ and ‘pastoralist’ as adjectives. Forms such as ‘pastoral development’, ‘pastoral resources’ and ‘pastoral systems’ can be found in the same document together along with ‘pastoralist households’, ‘pastoralist mobility’ and ‘pastoralist ecosystems’. Here, we have tried to follow the most common forms and, when possible, those preferred in the African Union Policy Framework for Pastoralism (African Union 2010).
- 2 The process that has led to this Orientation Framework is summarised in Annex 1.
- 3 IUCN (2012).
- 4 This involves those who believe that facing the new dimensions of unpredictable variability brought in by climate change requires *more* science (more capacity for prediction and ultimately more controlling power) and those who believe it requires *different* science (systemic, adaptive, capable of embracing variability). See Scoones (2019) for a recent overview focusing on ‘uncertainty’, and Chapman (2016) for a broader historical discussion.
- 5 Classifications of pastoralism have focused on features such as the degree of sedentarisation, whether or not it includes crop farming or is integrated into the market economy. At the most general extreme, pastoralism is simply included under ‘extensive/grazing systems’. A definition often used today refers to the degree of dependence on pastoral products for the gross revenue or the household (usually over 50 per cent). This definition was initially introduced as an attempt to classify the complex variety of animal production in the Niger flood plains of central Mali (Swift et al. 1983). It is still the best we have to distinguish degrees of involvement in a pastoral system, but it remains silent on what ‘pastoralism’ means in terms of production strategies.
- 6 The earlier approach was formally challenged within the scientific community in the mid 1990s, but people in the field working closely with pastoralists had voiced their discontent with various aspects of it since the 1960s. Several overviews of this fundamental rethinking of pastoral development are available. For some of the more easily accessible, see Jode (2009) and Krätli (2015).
- 7 Once variability is seen as a *constitutive* part of the environment rather than a disturbance, the notion of well-adapted production system takes on a different meaning. Adaptation stops meaning *coping with a challenge* and starts meaning fitness, or the capacity to *benefit* from the environment and operate at full capacity *precisely* under such conditions. A cow in deep water can adapt; a hippopotamus *is adapted*. Similarly, a strategy of production that assumes conditions of relative stability (e.g. temperate climates) can adapt to the ‘anomaly’ of variability (where the ‘anomaly’ of variability is relative to the production system, not to the ecosystem), while a strategy developed in conditions of structural variability *is adapted*.
- 8 This is a well-studied ‘paradox for decision makers’: the higher the levels of variability, the bigger the temptation to introduce stability, but efforts to introduce stability only produce more variability in a vicious cycle (Roe 2013). With specific reference to drylands, ‘Comparison of the dynamics of various savanna and other natural systems leads to a conclusion that the resilience of the systems decreases as their stability (usually induced) increases’ (Walker et al. 1981: 473), and ‘interventions aimed at achieving stability in non-equilibrium systems are likely to be irrelevant at best or disruptive and destructive at worst’ (Ellis and Swift 1988: 451).
- 9 Folke et al. (2002) and Roe (2013). Resilience theorists emphasise that ‘resilience is not only about being persistent or robust to disturbance. It is also about the opportunities that disturbance opens up’ (Folke 2006: 259). They also stress the need of ‘moving ... towards a science that is integrative [and] focuses on variability and uncertainty as absolutely fundamental, instead of as “noise” to be excluded from the analysis’ (Holling et al. 1998, cited in Scoones 1999: 494).
- 10 Homewood (2008), Moritz (2008) and Turner (2011).
- 11 Wetter regions have more biomass of lower quality (i.e. lower concentration of nutrients); after the rains, dryer regions have comparatively less biomass but of higher quality (Bremner and De Wit 1983).
- 12 Krätli and Schareika (2010) and Meuret (2014).
- 13 For example, some pastoral systems manage grazing itineraries across macro-ecological zones and broad movements within them, but do not herd animals during their daily grazing. Others herd all the time, trying to influence every aspect of grazing, including what parts of a plant the animal chooses to feed on, or what combination of plants. While management of this micro-scale of grazing is limited, herders can promote the capacity in their herds of making good use of the opportunities created

- by management. For example, they can foster animals' capacity for feeding only on the most nutritious food, that is targeting concentrations of nutrients at the micro-scale, and minimising any hindrance to it, for example stress (Krätli and Schareika 2010).
- 14 To emphasise the planned nature of mobility, the African Union Policy Framework on Pastoralism (African Union 2010) uses the expression 'strategic mobility'. Nevertheless, the vignette of pastoralists 'wandering' or 'roaming' in search of water and pasture remains common even in the technical literature. In reality, things could not be more different. Herders *moving in search* of water and pasture would not last long in drylands.
- 15 Turner et al. (2014).
- 16 The literature on dryland farming and pastoralism has for decades emphasised the importance of flexibility in processes and solutions (e.g. Mortimore and Adams 1999; Behnke et al. 1993).
- 17 Roe et al. (1998) and Krätli and Schareika (2010).
- 18 Similarly, dryland farmers would embed variability in their processes of production by using intercropping and multi-layering farming techniques, sequenced sowing, multiple varieties and pocket seeding or – as in the mountains of northern Ethiopia – by leaving stones in their fields to create concentrations of humidity in case of rainfall. More detailed descriptions of these examples can be found in Krätli (2015). On the wide range of options of crop–livestock integration beyond the scale of the farm, see Scoones and Wolmer (2002) and Schiere et al. (2006).
- 19 Hiernaux and Turner (2002), Krätli and Schareika (2010), Meuret (2014) and Krätli (2015).
- 20 Hodgson (2000), Ridgewell and Flintan (2007a, 2007b) and Sadler et al. (2009).
- 21 See Scott (1998), especially chapter 8.
- 22 Davis (2016) and Behnke and Mortimore (2016).
- 23 Examples of these interventions are centralised control of stocking and grazing, introducing permanent wells in seasonal rangelands, promoting the sedentarisation of mobile producers, replacing flexible land tenure arrangements with rigid and exclusive ownership, replacing diverse/complementary forms of specialization with 'universal/best' solutions (e.g. replacing high-scale crop–livestock integration with integration on the farm) and replacing the biodiversity of local livestock with the uniformity of imported breeds.
- 24 See Khazanov and Schlee (2012), Catley et al. (2012), Abdullahi et al. (2012) and Krätli and Swift (2014).
- 25 Catley and Iyasu (2010).
- 26 Hesse and MacGregor (2006), McPeak and Little (2006), Davies and Hatfield (2007), Rodriguez (2008), Zaal (2011), Behnke (2012), Krätli et al. (2013), Krätli (2014), Thébaud (2017), Kossou and Aubague (2010) and McGahey et al. (2014).
- 27 Jerven (2013), Pica-Ciamarra et al. (2014) and Krätli and Swift (2014).
- 28 'Technical exclusion is exclusion in practice, often unintentional and unmonitored, simply resulting from the inadequacy of classifications, bureaucratic procedures, mechanisms of appraisal, and systems of statistical representation' (IFAD 2018a: 10). For a range of examples, see Krätli et al. (2015).
- 29 The category 'agro-pastoralism' is relatively new, introduced in pastoral development at the end of the 1970s (a few years earlier in the francophone literature). Most pastoralist groups practised more or less opportunistic crop farming beforehand, but then scholars simply talked of 'nomads (or pastoralists) who farm'. For example, the Wodaabe of Niger and northern Nigeria, considered one of the most specialised and mobile pastoralist groups, settled and farmed for a whole generation following the rinderpest epidemics at the end of the nineteenth century (Bonfiglioli 1982). The Nuer, now often described as pastoralists who have shifted to agro-pastoralism as an adaptation to recent constraints, were already cultivating in the 1930s. British anthropologist Edward E. Evans-Pritchard described the Nuer as 'mainly a pastoral people with dominant pastoral interests' (Evans-Pritchard 1940: 209), while also observing that '[they] can no more exist on a purely horticultural economy than they can, at any rate since the introduction of rinderpest, exist on a purely pastoral economy' (Evans-Pritchard 1940: 69).
- 30 Turner et al. (2014) and Krätli et al. (2013).
- 31 An analysis of data from 18 rainfall stations in the Kenya-Somalia and Ethiopia-Somalia areas, covering periods ranging between 33 and 88 years, found a statistically significant negative trend in pluviometry in only one location (Catley 2017), therefore no evidence of a generalised increase in droughts. Catley explains the common impression of the increasing frequency and severity of droughts as being to do with the fact that 'they affect gro-

- wing numbers of poorer herders with few animals, who have few options in terms of moving or maintaining their herds' (Catley 2017: 15).
- 32 LEAP is an FAO multi-stakeholder partnership concerned with the environmental benchmarking of livestock supply chains.
- 33 A recent assessment of a pastoral system in Senegal by the Centre de Coopération Internationale en Recherche Agronomique pour le Développement (CIRAD), using a new 'ecosystem approach', found a neutral annual carbon balance (Assouma et al. 2019). The methodology most commonly used for assessing the GHG emissions of livestock systems is the Life Cycle Assessment, which being designed for industrial systems focuses exclusively on man made sources. The new methodology developed by CIRAD looks at all ecosystem components (animals, soil and plants) and the interactions between themselves and with the atmosphere. This takes into consideration not only the pastoralist ecosystem but also what would happen if pastoralism disappeared, as the niche presently occupied by pastoralism would most likely be filled by termites, which are one of the main natural sources of methane (CH₄) in tropical savannas.
- 34 See Salih (1991) for a distinction between 'livestock development' and 'pastoral development'.
- 35 Little et al. (2008).
- 36 This is the view amongst scholars specialising in pastoral systems. International institutions as disparate as the African Union, IUCN, ILRI, the Club du Sahel, the World Bank and the FAO have also produced statements along these lines.
- 37 Given that the population in rural areas grows faster than the rural economy, and that the trend in the past 30 years has been for the distribution of resources to become increasingly uneven, every year a growing number of farmers and pastoralists find it impossible to start or remain in the business. Besides, some are simply more attracted by the hope of an easier or more promising livelihood.
- 38 See <http://reindeerherding.org/wrh/declarations/>.
- 39 In 2005 in Oromia, Ethiopia; in 2007 in Segovia, Spain; in 2010 in Mera, India; and in 2013 in Kiserian, Kenya.
- 40 Mera Declaration. Available at: <https://www.iucn.org/content/mera-declaration>.
- 41 For example, in the Wilderswil Declaration (2007) and the Kiserian Pastoralist Statement (2013). In 2017, the Alliance for Food Sovereignty in Africa published a study on pastoralism as part of their project Strengthening Pastoralist and Civil Society: Voices in the EAC and IGAD Regions (AFSA 2017).
- 42 See http://danadeclaration.org/main_declarationen-english.shtml and <http://danadeclaration.org/dana10/dana-participant-statement-en.pdf>.
- 43 See <http://www.foodsovereignty.org/wp-content/uplo->
- ads/2015/02/Download-declaration-Agroecology-Nyele-ni-2015.pdf.
- 44 See <https://vsf-international.org/cancun-statement-pastoralism/>.
- 45 UNDP-GDI (2003). A list of myths about pastoralism is provided in Annex 2.
- 46 See <https://www.pastoralists.org>.
- 47 IUCN (2012).
- 48 The 'minimum standards' for pastoral development are defined by a balanced combination of four principles: (i) develop country strategies that recognise and support pastoral systems; (ii) avoid investments and policies that undermine pastoral systems; (iii) place governance and rights, including those of minorities, at the centre of pastoral development; and (iv) promote investments and policies that support pastoral systems (IUCN 2012).
- 49 See <http://www.fao.org/pastoralist-knowledge-hub/en/>.
- 50 IFAD (2018a, 2018b). See also <https://www.ifad.org/en/web/latest/event/asset/39006852>.
- 51 See <https://globalrangelands.org/international-year-rangelands-and-pastoralists-initiative>.
- 52 A 'pastoral code' was approved by the Chadian National Assembly in 2014 but blocked a few weeks later on political grounds. More recently, the government has been working on the *Loi d'orientation agro-sylvo-pastorale et halieutique* with support from the FAO. See <http://www.fao.org/tchad/actualites/detail-events/en/c/1041818/>.
- 53 Davies et al. (2018).
- 54 FAO (2016).
- 55 See <http://www.fao.org/pastoralist-knowledge-hub/knowledge-repository/legislation/en/>.
- 56 African Union (2010).
- 57 African Union (2010: sec. 1.2).
- 58 African Union (2010: secs. 4.1.3 and 4.1.4).
- 59 African Union (2010: sec. 1.1.2).
- 60 African Union (2010: sec. 4.1.2).
- 61 Republic of Kenya (2012).
- 62 Republic of Kenya (2012: v).
- 63 Republic of Kenya (2012: sec. 5.3.7).
- 64 N'Djamena Declaration on the Contribution of Pastoral Livestock to the Security and Development of the Saharo-Sahelian Areas. Available at: https://www.pasto-secu-ndjamena.org/classified/N_Djamena_Declaration_eng.pdf.
- 65 Nouakchott Declaration on Pastoralism: Mobilizing Jointly an Ambitious Effort to Ensure Pastoralism without Borders. Available at: <https://rr-africa.oie.int/docspdf/en/2013/NOUAKCHOTT.pdf>.
- 66 AU-IBAR (2015).
- 67 UN (2015).
- 68 See <https://fic.tufts.edu/pacaps-project/Pastoralism%20&%20Policy/COMESA%20RLPF%20flyer.pdf>.
- 69 See <https://igad.int/divisions/agriculture-and-environment/1809-igad-member-states-call-for-the-establish->

- ment-of-a-pastoral-land-governance-platform.
- 70 See <http://hubrural.org/CEDEAO-rencontre-de-haut-niveau-sur-le-pastoralisme-et-la-transhumance.html>.
- 71 The Somali areas remained under British administration for another ten years.
- 72 Markakis (2011).
- 73 As analysed by Sen (1981).
- 74 Flintan (2011), Helland (2000), Sugule and Walker (1998), Hagmann and Mulugeta (2008) and Homann et al. (2004).
- 75 Markakis (2011) and Little et al. (2010a).
- 76 Prunier (2015) and Gebeye (2016).
- 77 Ayalew (2001) and Gebeye (2016).
- 78 'The Government shall have the responsibility to improve grazing areas, to dig wells and to settle the nomadic people for farming purposes' (PMAC 1975: art. 27). Elsewhere it is stated that 'Nomadic peoples shall form associations to effectively carry out the functions enumerated in Article 10 (2) to (9)' (PMAC 1975: art. 26). One of these functions is 'to undertake villagization programmes' (PMAC 1975: art. 10.8).
- 79 Vaughan (2015).
- 80 Little et al. (2010a, 2010b). For a more recent review, see Gebeye (2016) and Gebremeskel et al. (2019).
- 81 Gebremeskel et al. (2019).
- 82 Gomes (2006) and Nassef and Belayhun (2012).
- 83 Elias (2008), Elias and Abdi (2010), PFE et al. (2010), Flintan (2011, 2014), Napier and Desta (2011), Korf et al. (2015), Mosley and Watson (2016) and Samuel et al. (2016).
- 84 Jackson (2011) and King and Monaghan (2015).
- 85 Ridgewell and Flintan (2007a, 2007b), Flintan (2010) and Watson (2010).
- 86 Catley (2009), Catley and Iyasu (2010), Aklilu and Catley (2010a, 2010b), Behnke (2010), Mahmoud (2010), Aklilu and Catley (2011), Behnke and Metaferia (2011) and Negatu (2011).
- 87 Catley and Cullis (2012), Venton et al. (2012) and Yirgu et al. (2013).
- 88 Markakis (2011), Little et al. (2010a) and Lefort (2015).
- 89 For an extensive and updated overview of pastoral development projects in Ethiopia, see Gebremeskel et al. (2019).
- 90 FDRE (2001).
- 91 The ability to force other people to take particular actions is only the most visible and direct manifestation of power. A more sophisticated dimension of power consists of defining the boundaries within which other people exercise their free choice (Lukes 2005).
- 92 This point was made during an intervention at the National Consultative Workshop on Pastoral Development and Pastoralism in Ethiopia, Addis Ababa, 21 March 2017.
- 93 Korf et al. (2015).
- 94 Lavers (2012).
- 95 Mosley and Watson (2016), Stevenson and Buffavand (2017) and Pertaub and Stevenson (2019).
- 96 In the words of Stephen Sandford, who at the time of writing had spent most of his professional life in Ethiopia – as economics advisor to the Development Bank of Ethiopia, then as senior economist in the Livestock and Meat Board of the Ethiopian Government, later at ODI and ILCA: 'Spending money on new water supplies is the easiest form of pastoral development. In many pastoral development programmes it is the only planned activity which actually gets carried out ... While this is a great waste of money, it has less serious environmental and social effects than one might fear, since after a few years few new water points still function' (Sandford 1983: 63).
- 97 Nassef and Belayhun comment, 'Water development can potentially undermine rather than promote development in pastoral regions if local needs, land use patterns, livelihood systems, and ecological functions (and the relationship between them) are not sufficiently understood and considered ... [D]ivorced from an in-depth understanding of pastoral livelihoods [water-point development] can compromise sustainable development in the long term despite stemming water shortages in the short term' (Nassef and Belayhun 2012: vii). Such observations go back a long time. Gebre-Mariam (1982) had previously pointed out that the rangeland around large water points was often degraded as it attracted settlers and the year-round use of the surrounding pasture, including crop cultivation and competing land use in predominantly rangeland areas.
- 98 Pertaub and Stevenson (2019).
- 99 Flintan (2011), Mosley and Watson (2016) and Survival International (2016).
- 100 'All property not held and possessed in the name of any person natural or juridical, including ... all forests and all grazing lands water courses, lakes and territorial waters are State Domain' (Haile Selassie I 1955: art. 130a).
- 101 'As of the effective date of this Proclamation, nomadic people shall have possessory rights over the lands they customarily use for grazing or other purposes related to agriculture. Nothing in the foregoing shall affect international agreements relating to nomadic lands' (PMAC 1975: art. 24).
- 102 Samuel et al. comment that 'No full regional land use plan is yet available in any of the pastoral-dominated regional states ... Exceptions are land use planning carried out in Oromia, Afar, and Somali regions for river basin development.' (Samuel et al. 2016: 7). See also Flintan (2014) and ICPALD (2017).
- 103 Even for irrigation, prime land is usually preferred. None of the irrigation schemes in the Awash have opened up new or unutilized resources (Little et al. 2010a).
- 104 Each hectare of dry-season grazing reserve enables pastoral systems to make use of 7 to 10 hectares of wet-season grazing land. Therefore taking 1,000 hectares of

- dry-season grazing reserve out of the pastoral system effectively means an economic loss equal to the productive value not only of the converted land, but also of an additional 7,000 to 10,000 hectares of wet-season rangeland that can no longer be accessed if herders cannot rely on the grazing reserve for keeping the system going through the dry season.
- 105 *Prosopis juliflora* was introduced to Ethiopia by development programmes in the 1970s, when it was planted over large areas until 1982, and again by the Food for Work Programme from 1986 to 1988. Today it is considered an invasive weed (Sertse 2005; Mehari 2015). In Afar alone, the area covered by *Prosopis juliflora* amounts to 30 per cent of productive land (Flintan 2011).
- 106 Private enclosures in pastoral regions have spread since the 1990s, also promoted by development projects as part of the drive to commercialization, and on the assumption that enclosures are universally beneficial for productivity and resilience to drought, despite empirical evidence suggesting the opposite (Gezu 2008). The spread of private enclosures has added to land fragmentation and contributed to undermining customary institutions managing access to grazing land. Enclosures are usually controlled by wealthier actors engaged in commercial production; they are not a solution for poorer households trying to rebuild their herds (Napier and Desta 2011; Korf et al. 2015; Hagmann and Mulugeta 2008; Devereux 2006). In Afar, pastoralists are fencing plots to prevent claims that the land is ‘vacant’ as population pressure and land degradation in the highlands precipitates the expansion of rain-fed agriculture towards the lowlands (Elias and Abdi 2010; Diress et al. 2010).
- 107 A survey of 400 households in Borena and Oromiya found dramatic losses in grazing resources and livestock assets in about 85 per cent of the sample (Elias 2008).
- 108 CSAE (2017).
- 109 Catley and Iyasu (2010).
- 110 Aklilu and Catley (2010b).
- 111 Watson (2010) and Ridgewell and Flintan (2007a, 2007b).
- 112 Markakis (2011).
- 113 Catley and Iyasu (2010).
- 114 CSAE (2017), with figures from 2016.
- 115 CSAE (2017).
- 116 CSAE (2017).
- 117 FAO (2011).
- 118 Flintan (2011). According to the FAO: ‘The Ministry of Agriculture estimates Ethiopia as having one of the highest rates of soil nutrient depletion in sub-Saharan Africa with losses from the use of dung as fuel for domestic purposes estimated to [be] equivalent to the annual use of phosphorous and nitrogen fertilizers’ (FAO 2011: 6).
- 119 ‘15–20 per cent of potential grain production due to poor pre-harvest practices and natural disasters ... losses of up to 30 per cent post-harvest due to inappropriate collection, transport, storage, pest control, etc.’ (MoARD 2010: 10).
- 120 CSAE (2017).
- 121 Behnke and Metaferia (2011).
- 122 Behnke and Metaferia (2011) and Leta and Mesele (2014). All dollar prices are in US dollars.
- 123 Shapiro et al. (2017).
- 124 Gebremeskel et al. (2019).
- 125 CSAE (2017).
- 126 Flintan (2011).
- 127 CSAE (2017).
- 128 CSAE (2017).
- 129 Little et al. (2010b).
- 130 SEEDA/MISEREOR focus-group with pastoralists in Ruki, Afdem, 26 November 2017.
- 131 Afar take their herds up into the Oromia zone of the Amhara region for two to three months at a time, often also working as wage labourers for highland farmers. Pastoralists in Bati district (Amhara region), who also farm, send their livestock to friends in Afar during the farming season, often for a fee. Smallholders in the east of Kewet district on the Amhara/Afar border sometimes rent additional land from pastoralists through crop-sharing agreements. In Borena (Oromia region), crop farming and pastoral systems often blend into one another, with pastoralists renting land from farmers (e.g. in Dugda Dawa) and labour-scarce farming households hiring pastoralists as agricultural labour (Negatu 2011; Gebreselassie 2016).
- 132 Little et al. (2010a), Behnke and Metaferia (2011). See also Coppock (1994) and Legese et al. (2008).
- 133 Sen (1981) and Catley and Iyasu (2010).
- 134 Catley and Iyasu (2010) and Aklilu and Catley (2010a).
- 135 The entitlement approach to the analysis of famines was proposed as a more powerful and evidence-based alternative to the assumption that they are caused by a decline in food availability. The entitlement approach ‘concentrates on the ability of people to command food through the legal means available in the society’ (Sen 1981: 45). Sen based his argument on a fine-grained analysis of major famines, including the Ethiopian famine of 1972–1974. Throughout the famine years, while farmers in certain provinces were starving to death, food availability in Ethiopia as a whole registered only a negligible decline. Indeed, food was moved out of famine-hit Wollo to other provinces throughout the famine period, while food prices in the province registered no substantial rise. Using the entitlement approach, Sen explains that, ‘Since the farmers’ food entitlement is a direct entitlement (without going through the market), a collapse of it can operate without a rise in market prices’ (Sen 1981: 96). Similar reasoning can apply to moments of crisis in pastoralism. Even with pastoral systems representing al-

most half of the livestock sector, a crisis that affected poor pastoralists above all (i.e. fuelled by lack of entitlement not by general scarcity) would record only a negligible fluctuation in livestock marketing for the country as a whole. Indeed, it might even result in an increase of livestock on the market, as poor households are forced by need to sell more animals than their preferred strategy (selling as little as possible in order to rebuild the herd) would prescribe.

136 SOS Sahel Ethiopia (2008). For a more recent and detailed analysis, which confirmed substantial undervaluation, see Behnke and Metaferia (2011).

137 Little et al. (2010a).

138 Behnke and Metaferia (2011).

139 Venton et al. (2012: 70).

140 According to the current Constitution, 'Ethiopian pastoralists have the right to free land for grazing and cultivation as well as the right not to be displaced from their own lands. The implementation shall be specified by law' (FDRE 1994: art 40.5). At least in the English version, the text is ambiguous with regard to whether 'free' refers to being accessible without payment or simply being available (i.e. free from other uses). This ambiguity is absent in the corresponding text about farmers: 'Ethiopian peasants have the right to obtain land without payment and the protection against eviction from their possession. The implementation of this provision shall be specified by law' (FDRE 1994: art. 40.4).

141 MoFED (2010).

142 FDRE (2011).

143 For example, several sources point out that the several million hectares offered to investors are mainly in the lowlands (Little et al 2010a; Markakis 2011; Flintan 2011).

144 This is reinforced by the legacy of the 1975 land tenure reform, which focused on farmers and cultivation, while representing all non-farmed land as 'empty' (see above). This bias in the legal structure of land tenure (not unique to Ethiopia) seems to have survived both the change of regime and the introduction of federalism.

145 For example, the productivity of pastoral systems is measured based on the average performance of individual animals in ideal conditions. These are standards designed to serve the logic of production in industrial systems (e.g. where the natural environment has little or no bearing). See Krätli et al. (2015).

146 Yirgu et al. note that 'A central narrative of the current move to sedentarise pastoralists is driven by a belief that pastoralist systems are now so much more vulnerable and less resilient. The idea of sedentarisation therefore becomes part of a wider narrative on disaster risk reduction and preparedness' (Yirgu et al. 2013: 8).

147 MoFED (2003).

148 MoFED (2002).

149 MoFED (2002: 72).

150 MoARD (2010).

151 MoFED (2010) and MoFED (2015).

152 MoFED (2015: sec. A.1.121).

153 MoFED (2015: sec. A.4.122).

154 MoFED (2015: sec. B.3.121).

155 MoFED (2015: sec. A.4.123).

156 MoFED (2015: sec. G.135).

157 FDRE (2011).

158 MoLF (2017).

159 MoLF (2017: sec. 2.2.3).

160 ICPALD (2017).

161 ICPALD (2017: 44).

162 ICPALD (2017: 23).

163 An English version of the draft, dated January 2017, was also circulated. We refrain from referring to this document here as it was not distributed at the launch.

164 MoFPDA (2018).

165 MoP (2018). In the meantime, changes in the government led to the dismantling of MoFPDA, and work on the policy framework on pastoralism moved to the newly created Ministry of Peace.

166 FDRE (2005).

167 UoBH et al. (2015).

168 Based on selected MISEREOR literature, especially the 2017 report Strengthening People-Driven Change Process in Asia, the 2010 report Strengthening People-Led Development, the 2008 discussion paper Participation in the Work of MISEREOR, and the 2006 orientation framework Partnership with Asia and Oceania.

169 Catley and Iyasu (2010) and FDRE (2011).

170 IUCN (2012).

171 Livingstone (1977), Mtetwa (1978), Khazanov (1981), Dietz (1993), Broch-Due (1999), Hodgson (2000), UNDP-GDI (2003) and OAU/IBAR (2006).

172 UNDP-GDI (2003).

173 Hodgson (2000).

174 African Union (2010).

175 Berman and De Wit (1983) and Krätli and Schareika (2010).

176 Jode (2009).

177 All these documents are available online.

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